

MAR 31 1960 PR

ROCKS AND MINERALS

Mineralogy
•
Geology
•
Lapidary



Amethyst, Brazil
Collected by
Terry M. Smith Collection
Photo by J. J. Hoffman

60c

MARCH-APRIL, 1960
Whole Issue 275



**BASIC
SET
of
9 TOOLS**

Plus —

Tool Rack
Instruction Book
Design Template
Transfer Paper

ONLY \$9.95

F.O.B. Los Angeles

Additional tools available, priced from 70¢ to \$1.25 each.

**BOOKLET
STAMP
ENGRAVING**

\$1.50

Step - by - step instructions. This booklet is included with the basic set of tools or may be purchased separately.

Highly polished silver, copper or other polished jewelry metals may be used.

Use for bracelets, earrings, pendants, cuff links, tie bars, trays of all shapes and sizes. Make your own designs or use templates as shown in instruction booklet.

CATALOG AVAILABLE

Don't forget to visit our

**SAN DIEGO STORE at 3276 El Cajon Blvd.
when in the vicinity**

R & B Art - Craft Co.

11019R So. Vermont Ave., Los Angeles 44, Calif.

Plymouth 6-9296

ROCKS and MINERALS

PETER ZODAC, Editor and Publisher
America's Oldest and Most Versatile
Magazine for the Mineralogist, Geol-
ogist, Lapidary.

Published Bi-Monthly

OFFICIAL JOURNAL



ROCKS & MINERALS
ASSOCIATION

Official magazine

of the

Eastern Federation of

Mineralogical and

Lapidary Societies

WHOLE No. 275

VOL. 35, Nos. 3-4

MARCH-APRIL, 1960

CONTENTS

PHYSIOGRAPHY OF CAPE CANAVERAL, FLA.— <i>Maurice B. Rosalsky</i>	99
PROSPECTING HURRICANE MOUNTAIN— <i>Helen M. Gallant</i>	104
THE YEAR IS DONE— <i>Ernest Weidhaas</i>	108
QUEBEC VACATION— <i>Lawrence and Harriette Schoppee</i>	110
NOTES ON THE BEACH SAND FROM BALTIC SEA— <i>Tomasz Turley</i>	112

DEPARTMENTS

WORLD NEWS ON MINERAL OCCURRENCES	114
THE MICRO-MOUNTER— <i>Conducted by Neal Yedlin</i>	123
THE SAND COLLECTOR— <i>Conducted by Peter Zodac</i>	126
THE AMATEUR LAPIDARY— <i>Conducted by Major George W. Owens</i>	133
FOSSIL DEPARTMENT	136
WOMEN'S CORNER OF R&M— <i>Conducted by Winnie Bourne</i>	138
CURRENT EVENTS OF THE EASTERN FEDERATION— <i>Edited by Mrs. Elsie Kane White</i>	139
CLUB AND SOCIETY NOTES	147
PUBLICATIONS RECENTLY RECEIVED	153
WITH OUR ADVERTISERS— <i>Conducted by James N. Bourne</i>	156

MISCELLANEOUS

CHIPS FROM THE QUARRY	98
SPRUCE PINE TO HOLD SECOND FESTIVAL— <i>Ashton Chapman</i>	103
SCOTLAND'S GOLD RUSH OF 1869— <i>Robert Betts</i>	106
MINERAL MUSEUM IN WEST VIRGINIA— <i>Jim Smedley</i>	107
A MASCOT FOR R&M	109
INFORMATION WANTED BY OUR READERS	111
M&T EXPANDS MINERAL MINING OPERATIONS	113
OUR EVER CHANGING EARTH (poem)— <i>Michael K. Green</i>	122
OBITUARY NOTICE— <i>Richard F. Good, T. Orchard Lisle, Clay Ledbetter</i>	125, 155
FRANK A. PITTS— <i>B. M. Shaw</i>	129
AMERICAN FEDERATION 1960 JUNIOR ESSAY CONTEST	132
AMERICAN FEDERATION TO CALIFORNIA 1960	152
PICKENS MINERAL POST CARD DEPARTMENT	155

Entered as second-Class matter September 13, 1926, at the Post Office at Peekskill, N. Y.
under the Act of March 3, 1879.

Title registered in U. S. Patent Office. Copyright 1960 by Peter Zodac

Specially written articles (as contributions) are desired.

Subscription price \$3.00 a year; Current numbers, 60c a copy. No responsibility is
assumed for subscriptions paid to agents and it is best to remit direct to the Publisher.

Issued bi-monthly on the 20th of the even months.

Authors alone are responsible for statements made
and opinions expressed in their respective articles.

ROCKS and MINERALS, BOX 29, PEEKSKILL, N. Y., U.S.A.
(Office — 157 WELLS STREET — Tele. Peekskill 7-3185)

CHIPS FROM THE QUARRY

COMING EVENTS

March 20, 1960 — 1st Annual Show of the Miami Mineralogical and Lapidary Guild to be held at the Museum of Science and Natural History, 1737 N. Bayshore Drive, Miami 32, Fla.

April 1, 2, 1960 — Montreal Gem & Mineral Club Annual Exhibition of gems and minerals in the Victoria Hall, Westmont, Montreal, Que., Canada. R. H. Duguid, Hon. Secretary, 8 Douglas Ave., Westmont, Montreal 6, Que., Canada.

April 2, 3, 1960 — 3rd Annual Show of the Slover Gem and Mineral Society, at the Lincoln School Cafetorium, 444 E. Olive St., Colton, Calif. For particulars write: Mrs. Aileen McKinney, 1080 Rancho Ave., Colton, Calif.

April 22-24 and April 29 - May 1, 1960 — Mesabi Rock & Mineral Club First Annual Show. April 22-24 with the Hibbing Sportsman's Show, Memorial Bldg., Hibbing, Minn. April 29 - May 1st, with the Eveleth Sportsman's Show in the Hippodrome, Eveleth, Minn. For information write: Richard Lake, P. O. Box 361, Chisholm, Minn.

April 23 and 24, 1960 — Wichita Gem and Mineral Society Annual Show to be held at the East National Guard Armory, 620 N. Edgemoor, Wichita, Kans. For further particulars contact Mrs. Charles B. Young, 346 Coronado Place, Wichita 8, Kans.

April 30, May 1, 1960—6th Annual Gem and Mineral Show of the Paradise Gem and Mineral Club will be held at the Veterans Memorial Hall on the Skyway at Elliot Road, Paradise, Calif. For particulars contact Mrs. Oliver Clough, Publicity Chairman, P. O. Box 692, Paradise, Calif.

May 7, 8, 1960—New Jersey Mineral & Gem Show to be held at the Irvington House, 925 Springfield Ave., Irvington, N. J. Host Societies—Newark Mineralogical Society, Newark Lapidary Society, North Jersey Mineralogical Society, Monmouth Mineral & Gem Club, and West Essex Mineral Club. For particulars contact Charles L. Freeman, Publicity Chairman, 5 Woodrow Place, West Caldwell, N. J.

May 14, 15, 1960 — Rockrama, sponsored by Michigan Gem and Mineral Society, will be held in St. John's High School, Jackson, Mich. Gen. Chairman—Wm. Barnhouse, 6517 Mapledale Rd., Jackson, Mich.

May 27, 29, 1960 — Timpanogos Gem & Mineral Society will hold a rock show at the Armory Bldg., Provo, Utah. For information write: Mrs. Alice Beardal, 37 N. 1810 W., Provo, Utah.

June 25, 26, 1960 — Heart of Connecticut Gem and Mineral Show will be held in American Legion Building, Moodus, Conn. For information contact Mrs. Robert P. Gallant, Box 32, Moodus, Conn.

July 2, 4, 1960 — Annual Convention and Show of the Rex Young Society of Rockhounds will be held at the Goshen County Fair Grounds, Torrington, Wyo. For dealer space contact: Charles Bass, Jay Em, Wyo.

July 8, 9, 10, 1960 — AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES AND CALIFORNIA FEDERATION OF MINERALOGICAL SOCIETIES, 1960 National Gem and Mineral Show and Convention. Redwood Acres, 9th District Fairgrounds, Eureka, California. HUMBOLDT GEM AND MINERAL SOCIETY. HOST. For information contact: Mattie E. Ross, Publicity Ch., P.O. Box 336, Fortuna, Calif.

July 23, 24, 1960 — 4th Annual Rock Hound Round-up of the Pine Tree Gem & Mineral Club, Swift River, Maine. For information Contact Freda Thomas, Roxbury, Me.

Aug. 4-6, 1960 — Eastern Federation of Mineralogical and Lapidary Societies, Municipal Auditorium, Asheville, N. C. Host: Southern Appalachian Mineral Society. For information contact: Chamber of Commerce, Asheville, N. C. (Field Trips, Aug. 7-13).

Aug. 10-13, 1960 — 2nd Annual Spruce Pine Mineral & Gem Festival, Spruce Pine, N. C., Sponsored by Chamber of Commerce, Spruce Pine, N. C.

PHOTO ON THE COVER

Photo on the cover of this issue is of a very fine xled native silver on white calcite. Size of specimen $1\frac{1}{2}'' \times 3\frac{1}{2}''$. Notice the resemblance this xled silver has to a feather. This extra fine specimen is in the collection of Terry M. Seward, 502 Roselawn Ave., Toronto, Ont., Canada. (Photo by P. F. Hoffman).

THE PHYSIOGRAPHY OF CAPE CANAVERAL, FLORIDA

By MAURICE B. ROSALSKY, Department of Geology, City College of New York

Up to two years ago few people in the United States outside of Florida had ever heard of Cape Canaveral. Now, however, with all the publicity afforded to this base for artificial satellites and various missiles, few newspaper readers in the country lack a familiarity with the name.

If a map of Florida is studied, Cape Canaveral can be seen on the east coast about half-way down the peninsula. It is, in fact, the only place on the long, straight coastline where the land juts out into the sea. Such a jutting triangle of land is known as a cusplate foreland. If next a more detailed map of Florida is studied, it can be seen that the east coast of Florida is bordered by a long narrow strip of land running roughly parallel to the mainland, but separated from it by a narrow band of marine water. This narrow strip of land on which Daytona Beach, Palm Beach, and Miami Beach are located, and from which Cape Canaveral juts, is known as a barrier beach or offshore bar. The narrow band of marine water is variously known as Indian River, Banana River, Lake Worth, and Biscayne Bay, but more properly should be called a lagoon.

There are many factors which favor the location of a base here. In the 472 mile length of the east coast of Florida, it is the widest part of the offshore bar, being as much as four and one half miles in width. It has the privacy of being furthest from the mainland of any point on the offshore bar, the ocean side being as much as fourteen miles from the mainland. It is an area that for years had been a United States Coast Guard Reservation and State Game Refuge and hence had but a small population. It is a flat, sandy area with the highest point approximately twenty feet above sea level.

Several questions may be raised about this cusplate foreland. Where did the sand come from in the first place? Why

did a cusplate foreland form here on the coast of Florida? Can the stages of development of this cusplate foreland be worked out? Let us discuss these questions in this order.

Students of the Florida coastline, such as Angus (1933), Cook (1939), Gulliver (1896), Martens (1935), and Shaler (1894), have, for various reasons, agreed that the prevailing currents along the east coast of Florida are southward, resulting in the southward transportation of sand. Angus (1933) actually observed that sand during storms travelled to the south on the Florida coast. As to the efficacy of storms, the writer (1950) noticed, in the case of Fire Island, Long Island, New York, that sand deposition is controlled more by the direction of storm winds than by the opposing direction of prevailing winds. Gulliver (1896) reported many cases of offshore bars overlapping each other to the south, on opposite sides of inlets, a clear indication that the prevailing currents flowed south along the southeastern coast of the United States. Martens (1935) pointed out that the original source of sand in Florida was from the decomposition and disintegration of the crystallines of the piedmont area north of Florida. As an indication that this sand was really carried south by shore currents, he noted that the percentage of quartz, in relation to CaCO_3 shell fragments, decreased along the coast of southern Florida, good evidence of being further from the northern source.

As for why a cusplate foreland developed at this locality, we can only hypothesize that conflicting currents must have met here forming eddies with consequent sand deposition. That such currents persisted for a long period of time is indicated by the large size of the cusplate foreland.

As for what changes occurred in the development of the cusplate foreland of Cape Canaveral, we have more direct

evidence. Let us study the excellent U.S. Geological Survey Topographic Maps of Cape Canaveral, and False Cape, Florida, edition of 1951. These maps are on scale of 1:24,000 with a contour interval of five feet. The first thing we notice is a long succession of low ridges delineated by the ten-foot contour lines. These ridges are roughly parallel to each other and to the NE to SW shore of the Cape. (See Figure 3). These ridges, which are known as beach ridges, are formed at the back of the beach from sand thrown up by storm waves. From forty to fifty beach ridges can be counted on the Cape Canaveral quadrangle, only some of which are shown on Figure 3. They clearly indicate successive stages in the growth of the Cape at the expense of the sea. When the shore is built out as is evident here, it can be called a prograding shoreline. An interesting confirmation of the relative ages of the beach ridges at Cape Canaveral was cited by Kurz (1942), a botanist. He pointed out that the beach ridges near the ocean have a vegetation which is superseded by other species in older ridges further from the ocean. This continues to the most ancient ridges to the rear, according to seniority. This orderly replacement of one plant association by another is known to botanists as plant succession.

Johnson (1919) recognized three principal stages of cusped forelands, the first developing into the second, and the second in turn into the third. He came to the conclusion that Cape Canaveral went through these three stages. Since he wrote in 1919, he did not have available the excellent U.S. Geological Survey Topographic maps of the area and consequently there is a need to develop the general picture considerably. In the first stage the shoreline builds out (progrades) with a long succession of beach ridges running parallel to both shores of the cusp. During stage 1, the point of the Cape kept migrating to the south consistent with the fact that prevailing currents flow south on the Florida coast.

(See Figure 1.)

What is the evidence that "the beach ridges were running parallel to both shores of the cusp" and that "the point of the Cape kept migrating to the south?" If we examine Figure 3, the present distribution of beach ridges on Cape Canaveral as seen on the 1951 U.S. Geo-

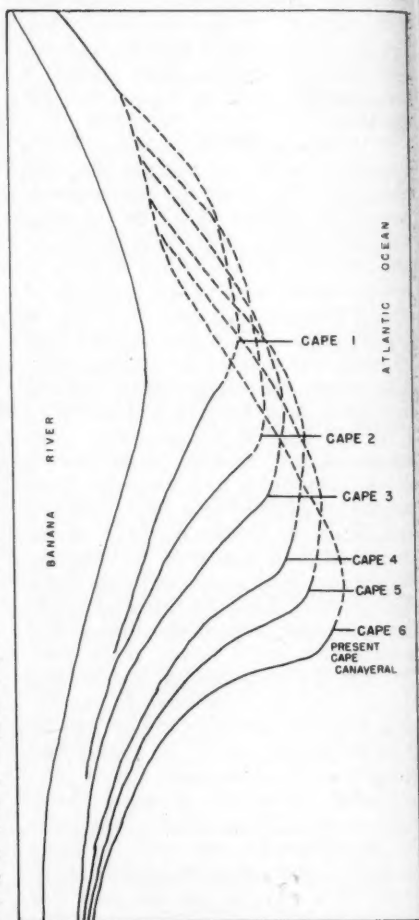


FIG. 1. Stage One

The former Cape Canaveral restored to the condition of stage 1. The portions of the beach ridges which are restored are shown in dotted lines. Numbers show the migration of the cape.

beach
both
point
th?"
dis-
Ca-
Geo-

logical Survey topographic map, we notice that the northernmost NE to SW beach ridges are cut off sharply and do not turn back to the NW in the typical stage 1 form since the turning point was eroded off in stage 2. South of this, however, we can actually see where the

ridges are starting to turn. (See Figure 3). Fortunately erosion of this section, just north of the present Cape, had not been sufficient to cut off entirely the turning point of the beach ridge, clearly showing that the beach ridge was parallel to both shores of the cusp as is shown in Figure 1.

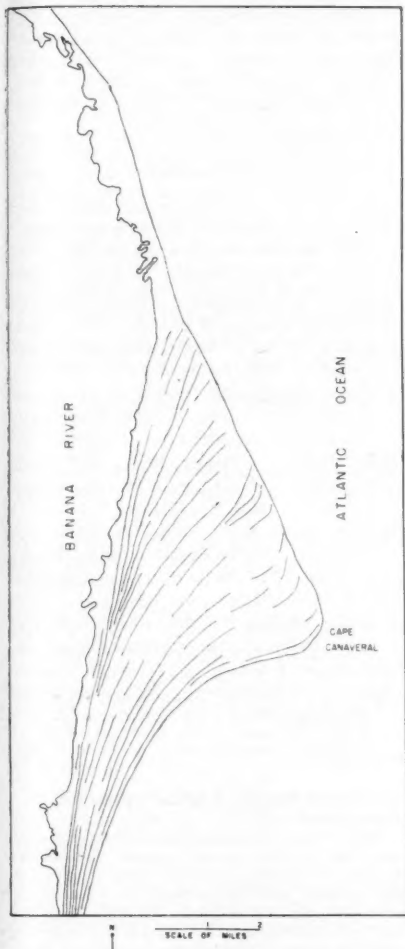


FIG. 2. Stage Two

The former Cape Canaveral, restored to the condition of stage 2. This is similar to stage three, except for the final deposition on the NW to SE beach.

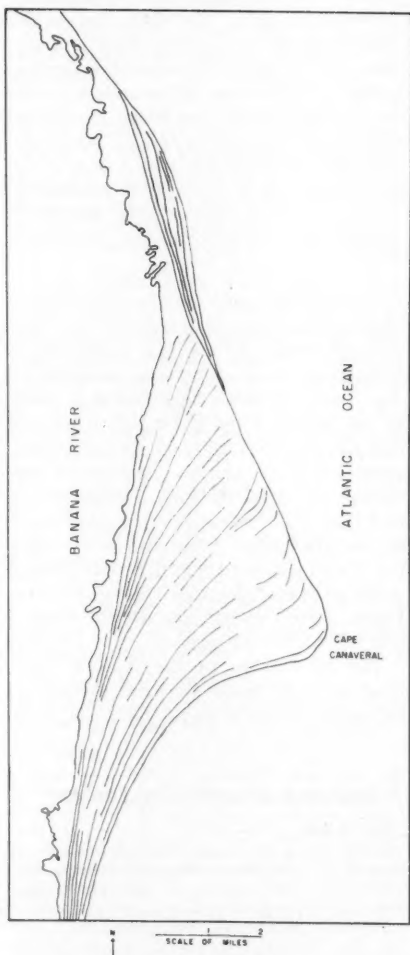


FIG. 3. Stage Three

The present distribution of beach ridges on Cape Canaveral, Florida. The data is taken from the Canaveral and False Cape Quadrangles.

Migration to the south of the point of the Cape is shown by a close examination of Figure 3. We notice that the turning points of the beach ridges are not in the same EW line but rather successively shift to the south with successively younger and younger beach ridges. Six suggested steps in a restoration of the position of the point of the Cape are shown in stage 1. We notice that as the cape progrades, it shifts further and further south with the northern section being eroded away. The turning points of the Cape from 3 to 6 can actually be seen at present (See stage 3) while the probable turning points at 1 and 2 can not be seen since they were eroded off in stage 2. The sections of the beach ridges eroded off are shown in dashed lines.

The second stage of the cusped foreland occurs when one side of the cusp is eroded back so that no beach ridges remain parallel to that shore. South-flowing currents eroded back the area north of the present Cape Canaveral to achieve this condition. Fortunately, as was mentioned before, erosion was not deep enough to cut off the later turning points and thus make impossible the restoration of the first stage. Johnson (1919) cites the Darss foreland on the Baltic coast as an example of the second stage. See Figure 2 for a restoration of Cape Canaveral in the second stage.

The third stage of the cusped foreland develops when the eroded cusp of the second stage is again built out with

a new succession of beach ridges parallel to the new shoreline. Johnson called such a form a complex cusped foreland. As we can see by looking at Figure 3, Cape Canaveral is now in this stage.

Questions may be raised as to why the cusped foreland of Cape Canaveral formed in the first stage was later eroded to some extent in stage two and still later built out again in stage three. The fact that such changes actually did occur clearly shows that the currents in this area have changed in their action several times.

References

- Angus, Robert M., "Erosion and Accretion on the Coasts of North Florida and Georgia." *Shore and Beach*, vol. 1, pp. 46-48, 1933.
- Cook, C. Wythe, "Scenery of Florida, Interpreted by a Geologist." *Florida Geological Survey*, Bull. 17, pp. 61-79, 1939.
- Gulliver, F. P., "Cusped Forelands." *Geol. Soc. Am.*, Bull. 7, pp. 399-422, 1896.
- Johnson, Douglas W., *Shore Processes and Shoreline Development*, New York, 1919. 584 p.
- Kurz, Herman. "Florida Dunes and Scrub, Vegetation and Geology." *Florida Geological Survey*, Bull. 23, 154 pp., 1942.
- Martens, James H. C. "Beach Sands Between Charleston, South Carolina, and Miami." *Geol. Soc. Am.*, Bull. vol. 46, no. 10, pp. 1563-1595, 1935.
- Rosalsky, Maurice B. "The Characteristics of Beach Drifting." *Shore and Beach*, vol. 18, no. 1, pp. 6-8, 1950.
- Shaler, N. S. *Sea and Land. Features of Coasts and Oceans*. New York, 1894. 252 p.

MET AVID MINERAL COLLECTORS!

Editor R&M:

For the past two years, through correspondence with subscribers whose names have appeared in your columns, I have met many avid mineral collectors who have made this hobby both pleasurable and interesting.

ROCKS AND MINERALS performs a real service to mineral collectors in that it brings them together regardless of how far apart they may live.

C. M. Spooner
104 Sandringham Dr.
Downsview, Ont., Canada

R&M Popular at School of Mines!

Editor R&M:

Here at the Colorado School of Mines your magazine is the favorite among the "Rock-hounds." By the time an issue has made the rounds, one must piece it together in order to read its contents. World News on Mineral Occurrences is our favorite article since there are students from around the globe in attendance here. So that we may continue to read your magazine, please find three dollars enclosed in this letter to renew my subscription.

Charles N. Speltz
Bradford Hall, Box 58
Golden, Colo.

SPRUCE PINE TO HOLD SECOND FESTIVAL

By ASHTON CHAPMAN, Little Switzerland, N. C.

Plans for the second annual Mineral and Gem Festival have been announced by the Chamber of Commerce of Spruce Pine, N. C., the sponsoring organization responsible for the highly successful festival held last August. Peter Lowe of Spruce Pine will again be general manager, according to David Blevins, Chamber president.

On the banks of the Toe River in the mountains of western North Carolina, Spruce Pine is widely known as center of a district where mica, feldspar, kaolin and iron have been mined commercially for many years and where other minerals in lesser quantities, including numerous gemstones, also occur.

Dates for this year's festival are Aug. 10, 11, 12, and 13. Last year more than 3,000 rockhounds and other interested persons flocked to the first Spruce Pine Mineral and Gem Festival. Attendance is expected to be much larger at the 1960 festival, when the exhibits will be not only more numerous but more extensive.

Prizes are being offered in various categories for competitive exhibits by individuals, mineral societies, schools and dealers.

Lectures by prominent geologists and gemologists and the showing of technical motion pictures will be featured.

Guided field trips will be conducted to selected mines and other points of interest.

Information about additional field trips will be supplied to festival visitors who may wish to make them on their own.

In addition to being noted for its mining activities, Spruce Pine is also widely known as the center of a popular summer resort area. With an elevation of half a mile above sea level, the town always has cool weather, even in August, when blankets usually feel comfortable at night.

Other summer resorts within a radius of 25 miles include Linville, Linville Falls, Banner Elk, Bakersville, Burnsville, Little Switzerland, etc.

The many spectacular scenic attractions include the Blue Ridge Parkway, the remarkable two-lane motor highway that leads into the area along the very crests of the ridges. At Gillespie Gap on the Parkway, 5 miles south of Spruce Pine, is the Museum of North Carolina Minerals, only museum of its kind, visited annually by thousands of rockhounds and others. Admission is without charge.

Mt. Mitchell, with its 6,684-foot summit, the highest spot in eastern America, is easily

reached via the Parkway. Motor roads also lead to the tops of 6,300-foot Roan Mountain and 5,939-foot Grandfather Mountain. The Roan is known among rockhounds for its deposits of the beautiful gem material, unakite.

Near Little Switzerland is one of the few emerald mines ever operated commercially in the United States. Near Spruce Pine are two old aquamarine mines and a soapstone mine. One of the largest amphibole asbestos mines in the world was long operated near the famous Cranberry Iron Mines, which were reopened last year after being closed for a long period. Olivine has been mined at Green Mountain. Halloysite, vermiculite and several other of the state's 300-odd minerals have also been mined in the Spruce Pine district.

Many persons devote all or spare time to producing the old-time handicrafts. The internationally famous Penland School of Handicrafts, largest strictly crafts school in the United States, offers instruction in more than 60 different crafts. Useful and decorative articles of hand-wrought iron are turned out by forges, one of which is operated by Daniel Boone VI. The numerous other craft activities include chair making, basket weaving, rug making, pewter and copper hammering, jewelry, set with native gems, pottery, etc.

Painting classes and a summer theatre are conducted at Burnsville.

Recreations in Spruce Pine and surrounding areas include golf, swimming, fishing, hiking, mountain climbing, etc., in addition to searching for mineral specimens.

Instead of sidewalk stands for the sale of homemade lemonade, children set up along the roadsides booths with signs reading "Rocks For Sale."

The long list of minerals found in the Spruce Pine district includes, in addition to those already named, garnet, hyalite, glass-clear oligoclase, pink oligoclase, sunstone, actinolite, ruby and sapphire corundum, apatite, allanite, black tourmaline, albite, orthoclase, samarskite, autunite, columbite, amazonite, bornite, covellite, malachite, chalcophyllite, sphalerite, massive beryl, gummitte, torbernite, monazite, chrysolite, thulite, talc, almandine, pitchblende, golden beryl, zircon, rutile, kyanite, and smoky, clear and rose quartz.

The swap shop, where no money changes hands, was a popular feature of last year's Spruce Pine Mineral and Gem Festival, and is expected to be even livelier this August.

PROSPECTING HURRICANE MOUNTAIN

By Helen M. Gallant
Box 32, Moodus, Conn.

Last year, while attending the Eastern Federation Convention, my husband, Bob, and I met a Mr. Joseph Stromwasser. In the course of conversation, he spoke of some nice smoky quartz crystals to be found on Hurricane Mountain in the North Conway, New Hampshire area.

Nothing would do but we should make that one of the prime stops of our vacation, the convention being the first. In North Conway, a Mr. Henry Barbour very kindly gave us directions to the spot, and said he would meet us there at 2 P.M., it then being around noon.

We drove up the mountain as far as we could and climbed the other one-half to three-quarters mile on foot, straight up! There's an overgrown road part way up, then we struck off into the brush, so to speak. There being no trail, it will always remain an enigma as to how Bob knew where he was going. He seems to have an unerring instinct when it comes to finding localities. I think

he must have a little bloodhound in him.

We hit the spot right on the nose, and Bob started poking around with the crowbar at the base of a tremendous outcrop of ledge. Suddenly his crowbar sank several inches into the earth. Bob had found his pocket!

At 2 o'clock when Mr. Barbour put in an appearance he was going great guns. He could get h's arm in but not much more, so he proceeded to make a larger opening. By this time a steady downpour had set in, and we were both soaked to the skin, but nobody cared but me, who was too tired from the climb to more than sit and shiver. He worked on that darned hole all day pulling out crystal after crystal of smoky quartz. Nothing seemed to dampen his enthusiasm.

It took all day, but by late afternoon he had the hole big enough to squirm into, and I mean squirm. He would have done justice to a hula dancer. Once



BOB GALLANT ON HURRICANE MOUNTAIN.

Left - He discovers a large pocket and stands in it. Right - oops! . . . where's Bob?

in, I was afraid he would forget the combination and not be able to get out, but he always made it. He reminded me for all the world of a genie coming out of a bottle.

He disappeared into the hole by degrees, head, shoulders and hips, until only his feet were sticking out. The hole went straight down, and every once in a while he would come up for air. His eyes were bulging and bloodshot from hanging head down. He looked like a "man from Mars."

By nightfall we had a soggy cardboard box of quartz crystals, and I mean soggy, so we proceeded to make our way down the mountain in the dark, Bob fighting to keep the box in one piece. We thought we were wet before, but by the time we got through stumbling through the wet brush, we were completely drenched. We made our way back to the car by trial and error, having started out ahead of Mr. Barbour.

When we got back to the car we found some friends waiting for us that we had met the previous day at Lovejoy Pits, a Mr. Robert Brown and Charles "Skip" Merrill, who hail from up around Worcester, Massachusetts. By the time we had said goodnight we had made plans to meet Mr. and Mrs. Merrill and Mr. Brown the next day to clean out what was left of the pocket.

Bob and I were camping out in our '55 Chevy station wagon, and as "old Lizzie" had sizzled and bubbled on the way up the mountain, we decided to spend the night on the spot and get

an early start in the morning.

It was raining too hard to set up the camp stove, so we climbed out of our wet clothes, shared a can of cold spaghetti and crawled into the sack. With the rain beating on the roof, plus the activities of the day, it didn't take long to fall into the arms of Morpheus.

Bright and early, we popped out and got breakfast, and by the time we were through, our friends had arrived and everyone was rarin' to go, including the Merrill's dog, "Jiggs." The sun was out and it had stopped raining, but the brush was still wet as we made our way gingerly back up the mountain, trying to keep as dry as possible.

We found the way back to our spot, and Bob got busy again, looking for all the world like a gopher. He took a few more pieces out, but it was pretty well cleaned out when he started working on another branch of the pocket which opened up at the surface a couple of feet away from the main pocket.

It had roots an inch and a half in diameter growing across it, and had evidently been cleaned out years ago. So much for the pocket.

We started looking around the general area and found some massive crocidolite, as well as crystals of the same.

It was now a little after noon, so we decided to go back to the car and head for another locality. So after making plans to meet again, we said goodbye to our friends, and went back down the mountain, two very satisfied and happy people.

PUT TO GOOD USE!

Editor, R&M:

In the past year which I have received your magazine I have thoroughly enjoyed it and put it to good use.

I think there can't be any magazine which will compare with ROCKS AND MINERALS and will continue to order it as long as possible.

Steve Denney
6300 9th Ave., No.
St. Petersburg, Fla.

R&M—AN OLD FRIEND!

Editor, R&M:

Enclosed is \$3.00 for another year's subscriptions to ROCKS AND MINERALS.

It is to me like an old friend paying me a visit every other month and I certainly enjoy reading it.

I wouldn't be without ROCKS AND MINERALS.

Leonard Tielmann
46 E. Federal St.
Allentown, Pa.

SCOTLAND'S GOLD RUSH OF 1869!

We are indebted to Sandy Ramsay, 1015 Aikenhead Road, King's Park, Glasgow S4, Scotland, for the following item relative to Scotland's gold rush in 1869. It was clipped from *Glasgow's Reveille* (Sept. 10, 1959).

"The biggest nugget found was only four ounces, but it serves to show that there is gold somewhere in Scotland." —note from Sandy attached to the clipping which reads as follows:

SCOTS TOOK THE LODGE ROAD—BUT DIDN'T FIND MUCH GOLD

by ROBERT BETTS

You've heard of the Yukon Gold Rush and the Trail of '49—but there was once a goldstrike in Scotland.

It happened in Helmsdale, a tiny old fishing port at the edge of the Sutherland highlands.

One of the locals pointed to the dark, distant slopes and told me: "Aye, there's gold in yonder hills. The diggings are up at Kildonan, about seven miles from here."

So off I trudged on the Kildonan Trail to find I'd arrived one hundred years too late! The diggings were deserted.

But I did come across eighty-year-old Willie Macleod, a rugged, weatherbeaten, hardy old Highlander who has lived all his life in that lonely spot. His father before him was a shepherd in those Highland hills.

He cupped a gnarled hand over his ear and nodded when I inquired about the gold.

"Aye, there's gold here," he confirmed, "but in such wee quantities that it's not worth digging for."

He pointed to a spot where the water of a mountain stream came tumbling and sweeping round a rocky bank and told me of the Scottish gold rush of 1869.

Then the place was alive with prospectors. They scrambled and scratched over the banks and waded knee-deep in the stream with their pans and sluices searching for the precious grains.

"Alluvial gold it was," said Mr. Macleod, "washed down by the mountain water and mostly in grains. But there were bigger nuggets, too, weighing over an ounce."

A Caithness man named Gilchrist started the rush. He had been gold prospecting in Australia.

He started his search—and, sure enough, in the stream at Kildonan, he spotted the familiar sparkle of gold.

The news spread. Crofters left their fields and the fishermen left their nets and poured into Kildonan with picks and shovels. They came from farther afield, too—down-and-outs in search of a fortune as well as professional diggers and engineers from England and the Continent.

They pitched tents on the slopes and began digging.

As the search intensified, gold was found in nearby tributaries.

But there was one man who had not caught the gold fever. To the Duke of Sutherland, the prospectors swarming over his territory were a nuisance.

This was sheep-farming country, and he considered wool more precious than the grains of gold for which diggers were tearing up his hills.

Although each man paid one pound a month license fee for digging, the Duke thought it was not sufficient compensation for the destruction they caused.

He thought there was not enough gold in the area to make mining worthwhile, but he agreed to let twenty men have forty square feet each to operate as test claims.

All the gold they found was to be handed to the Kildonan stationmaster, who would act as an independent arbitrator.

After three months the stationmaster reported that "there is gold in paying quantity in the bed of the stream, but it will not pay with the primitive appliances in use by the diggers."

A stop was put to all digging, but during the twelve months the fever had lasted some twelve thousand pounds worth of gold was deposited at the bank in Helmsdale.

In 1911 a mining expert reported that gold did not exist in the district in large enough amounts to make panning an

economic proposition.

Today some of the Kildonan gold is still to be seen—in rings and jewelry worn by local people. Mr. Macleod showed me a gold signet ring with the initials "K. M."

"That was my father, Kenneth Macleod," he told me. "It's all I ever got out of the gold rush."

Editor's Note: Helmsdale, in northern Scotland, is on the Donnoch Firth (an arm of the North Sea).

MINERAL MUSEUM IN WEST VIRGINIA

By Jim Smedley

Box 242, Follansbee, W. Va.

Having collected so many minerals from all over the country and Canada that they were crowding me out of my house and home, I decided to build a museum to house my specimens. The museum was built and opened May 30, 1959. There is no admission charge to visit this museum which I believe is the only private mineral museum in West Virginia.

My family and I, and our pet crow, have visited and collected in 29 states and Canada so we have quite a collection on display. If anyone wants to trade or buy, we would be glad to accommodate them.

I want to thank R&M for the help it gave me in starting my mineral collection and for the many friends I made through it, also

for supplying me with many locations for good mineral specimens.

My thanks go also to the late W. H. Hayes, of Irvington, N. J., from whom I received many good New Jersey minerals, also to J. N. Convery of Far Hills, N. J., to Ben Clement of Marion, Ky., and to the many good friends all over the country with whom I have traded or visited.

Stop and see me when passing through West Virginia. I will be happy to meet you, and you can inspect my collection. Bring some specimens with you and we may do some trading. Also remind me to call your special attention to the front of the museum—in the cement blocks are imbedded rocks and minerals from all over the country!



Smedley Museum in Follansbee, W. Va.
Jim Smedley and his daughter, Jeanne, standing in the doorway.

THE YEAR IS DONE

Address delivered by Ernest Weidhaas, President, of the Westchester Mineral and Gem Society, at the Annual Meeting, December Seventeenth, 1959.

The fateful hand that none can stay, moving relentlessly forward, will soon mark the end of another year, and 1959 will have passed into history.

Standing before you to give my final report, and bid farewell as your president, I find that speech does not flow as freely as usual, for my tongue cannot form the words my heart would have it utter.

The year which is closing for the Westchester Mineral and Gem Society has been a successful one. The meetings have been well attended, each one being better than the last. They were all of distinct interest, instructive, and entertaining. The speakers who addressed us were of the highest caliber, everyone of them an expert, well versed in his particular subject. We recall with pleasure Mr. Peter Zodac's address on mineral collecting experiences, Dr. Frederick A. Stenbuck on semi-precious gems, Mr. Curt Segeler on phosphate minerals, Mr. David Seaman on mineral identification, and Mr. Arthur Blanc on polishing technics.

We have added sixteen new members, so our roll now stands at sixty-six, and our financial statement is the best we have ever had. All this is gratifying, but our progress has not been confined to these results alone. The real growth has been in the cordial amity and friendly spirit which has prevailed throughout the year.

I am grateful to all the members and officers who worked so hard to achieve this goal. Their loyalty and aid is most sincerely appreciated.

The Vice-President, Seymour Schweitzer, whom you have just elected President for the ensuing year, time and again proved his qualification for this office. He could be depended upon in any emergency, and his wise counsel was of inestimable value. I know you will have a great year during his administration.

No one else could have given me the assistance which I received from the Second Vice-President, George Jellenik. Among the many ways in which he aided

me, was with his work as a one man Excursion Committee, which secured for the society, admission to quarries that otherwise would have been inaccessible. Together with Mrs. Kopp, he also produced the roster of membership, which is a model of perfection and information, for other clubs to follow.

And this brings me to the services rendered by the Corresponding - Secretary, Arthur Blanc. His notices were always sent promptly, and there was never a complaint of an unreceived or mis-addressed notice.

Also an appreciative word to my good friends, Ted Schoen and Frank Chambers, who did such good work respectively as Speakers Committee and Publicity Committee.

No adequate praise can be given to the Secretary - Treasurer, Mrs. Wilma Kopp. Her efficient work in collecting dues, and the masterful recording of the minutes are known to all, but few know of the many tasks and problems which confronted us during the year, and which were cheerfully assumed and solved by her. I was indeed blessed to have her as my right hand, for I would have been helpless without her aid.

And last but not least, orchids to the members, many of whom never missed a meeting, and who rejoiced with me in whatever success my administration attained, and who were equally patient with me in my failings.

But in our symphony of harmony, there were also melancholy notes, for the Angel of Death twice passed among us, and we lost two of our valued friends, Mrs. Arthur Fuller and Mr. Oscar Bodelson. Will the members please rise for a few moments of silent prayer in their memory. . . . May their souls rest in Peace.

And now, the candle burns low, and with its last flicker, my song will be ended.

(Continued on page 157)

A Mascot for R&M!

The writer made a burro from odd pieces and chips of Franklin, N. J., fluorescent minerals, cemented the pieces together and mounted the burro on a small marble slab from Marble, N.C. The burro was presented to Mr. Zodiac as a mascot for ROCKS AND MINERALS. It was named Rocky.

The next day I realized an error. The tail stood straight out like a dog's tail, whereas it should be hanging down. However, if anyone asks about it, tell them it is a pointer. When it spotted the Franklin minerals the burro's tail went up like a rockhound's hair stands up the first time he sees Franklin minerals fluoresce.

The writer believes every mineral club should have a mascot made of natural rocks or minerals to create competition and interest in and among clubs. The members should make various types of figures such as a dog, owl, etc. Within a given time the figures are brought to a club meeting, the most popular one is chosen as a temporary mascot for the club.

At the next convention or mineral show, each club will display its mascot to be judged by the convention judges. (no doubt there will be an array of hounds and various species), the judges will pick out the best of each specie and award it to the club as its official mascot. No two clubs shall have the same mascot. The club should return all models to the makers, except the official mascot, which becomes the property of the club. The losers will have another year to make a model to be judged at the next Mineral Show.

An official mascot should be allowed to be displayed with a club or club member display but should bear no weight on the display of mineral or gemstones because the mascot has been judged.

The writer is donating this conception to the Eastern Federation to inspire retired folks, youngsters, shut-ins and members in general to achieve something to be proud of especially the model chosen for the Official club mascot.

I would like to see shut-ins and handicapped members capitalize on this idea after his club has an official mascot.

The writer also hopes the Federation gives ROCKS AND MINERALS the honor of having the Burro mascot because for years the burro carried minerals for the prospector and ROCKS AND MINERALS carries Mineral News.

Any club affiliated with the Eastern Federation that cannot send a representative to the Convention could mail their chosen model to the show to be judged as an official mascot, return postage enclosed.

Would you like a Mascot as emblem for your club? Comments please—

John Kuhhorn
Germantown, N.Y.

Member of Fulton County Mineral Club, Capital District Mineral Club, and the Rocks and Minerals Association.

Editor's Note: This very novel mascot was presented to R&M by Mr. Kuhhorn on Mon., Dec. 21, 1959.

It consists of a small grayish burro, 4" long & 4" high with huge ears (all gray) mounted on a 2x4 inch thin, gray slab of marble (from Marble, N. C.). A dozen small rough pieces of Franklin minerals are mounted on the slab around the burro's feet to simulate a rocky terrain. Except for the marble slab which is not fluorescent, all the rest of the mascot is made up of fluorescent Franklin, N. J., minerals as follows (All trimmed to shape & cemented):

body and neck—gray calcite
head—franklinite and willemite
nose, mouth, ears and eyes—calcite
tail—willemite
legs—calcite
blanket—powdery hydrozincite

"loose" rock on slab around burro's feet—franklinite and willemite.

Cement used—Dupont household cement. Note: if too much cement is used it will kill the fluorescence.

QUEBEC VACATION

LAWRENCE AND HARRIETTE SCHOPPEE

9 Greenbrier St.,
Springfield, Mass.

Within seven hours from home we reached a foreign country, complete with a different language, new scenes and unfamiliar minerals. The language difference in Quebec presented little difficulty, as nearly everyone is bilingual there. Our problem was understanding a French-Canadian trying to pronounce mineral terms in French-English. Champagne and fresh bread available at roadside stands, cheese factories, churches and shrines of many designs, acres and acres of cultivated berries, all these required slide after slide of Kodachromes to show the folks at home.

The *piece de resistance* was, of course, the variety of minerals to be found in Quebec, even in so small an area as we were able to cover in eight days. With apology to this fascinating but enormous province, we had planned to "do" the province during our three-week vacation. The first change in plans limited us to two weeks away, and the second change required us to stop collecting after eight days because the muffler was being dented at every bounce!

At the fourteen locations we visited, we collected only as much as we can use in our collection and in swapping with friends, keeping in mind the many children who come to our door for specimens for school work. We hope this will not be considered out of line with good collecting manners, because the complaint we heard from several Canadians was that outsiders come in and clean out a location. There is considerable resentment against wholesale collecting especially by those with commercial interests. We pass along this information to try to insure a welcome for all collectors.

The uvarovite (chrome garnet) location in Orford is world famous for one-eighth-inch green garnet crystals. These are no longer easily found, but tiny, brilliant, clear green crystals sprinkled generously over pyroxene crystals make a showy specimen. The millerite crystals found there were of surprising size — one-

sixteenth of an inch across and half an inch long. Another specimen is almost completely enclosed in transparent calcite and is two inches long. The pyroxene crystals in creamy tan terminated singles or grayish white bundles were new and fascinating to us.

The Quebec Columbian Company at Oka is prospecting for pyrochlore, the main source of columbium in that locality. Associated rare earth minerals found with the octahedral pyrochlore were perovskite, niocalite and britholite. Niocalite was first found here, and britholite was formerly found only in Greenland. We expect to spend many hours this winter testing our specimens to determine which is which. If you visit Oka, bring good specimens to swap with Mr. Stephen Bond, the manager, or write for prices on samples to help the geologists furnish their lounge.

Kilmar Mine at Kilmar is mentioned as a magnesite location, but the operations are all underground, and the best collecting can be done with the geologist, Mr. Philip Bate, who will swap specimens and give locations where collecting is possible. We will always be grateful to Phil and Jessie Bate for the hospitality of their home and for giving us the name of Dr. Don Hogarth in Ottawa, Department of Geology, University of Ottawa.

Our call to Dr. Hogarth resulted in an invitation to go out collecting next day with three members of the Ottawa Mineral Club into the Quebec mining area across the river from Ottawa. Imagine a tour conducted by a professional mineralogist into the area on which he based the thesis for his doctor's degree, and you will realize how privileged and delighted we were. On this one-day, five-stop trip we collected phlogopite crystals, pyroxene crystals, scapolite crystals, rutile crystals, acmite crystals, serpentine, blue barite and riebeckite.

Dr. Hogarth told us about the good prospecting possible along the new highway built through the Gatineau Park. We

saw some of the brilliant black tourmaline crystals which were found at one road-cut, but exploring this new country will have to be postponed for a longer vacation.

While you are in Ottawa (the best accommodations are there for the Gatineau Area), whether or not you make connections with Dr. Hogarth, we suggest the following procedure. For anyone planning to collect in this area for the first time, we strongly recommend purchasing copies of Canadian Topographical maps for Wakefield, Quebec, 31 G/12 East and West halves (two maps). These are obtainable from: Map Distribution Office, Dept. of Mines and Technical Surveys, Ottawa, at twenty-five cents per copy. Why not ask for a master map at the same time and you will be ready to order maps for the wide open spaces of Quebec beyond the Gatineau-Hull area.

Take your maps and visit Grant Thompson at the Ottawa Valley Gem Shop, 424 Churchill Avenue, Ottawa. Get a city map at a Texaco Station, and you'll have no trouble finding it. Grant Thompson is happy to provide information, mineral specimens and beautiful jewelry made of Canadian minerals (and others). We spent the next few days visiting the locations recommended by our generous Canadian friends.

Brucite in large (handsized) foliated masses was common on the roadside dump of the magnesium mine just south of Wakefield on Route 11. Yellow to green serpentine, pseudomorphs of serpentine, and apatite crystals in assorted colors in bright orange calcite may be found on the dump. Crystals of brucite have been found here, as well as massive brucite in clear tabular form.

The Hull Iron Mine at Ironside, Quebec, is working for magnetite but the dumps show many associated minerals including masses of garnet. Turn left off Route 11 at Ironside and watch the right hand side of the road for the dumps.

St. Remi d'Amherst is a dazzling sight—sheer cliffs of massive white quartz outlining an enormous excavation. Our white car looked gray. In the quarry walls are occasional vugs of clay in which quartz

crystals may be found. We found small clear crystals and large doubly terminated milky crystals, some with multiple terminations.

On the Wakefield West map is shown Lafleche Cave just north of Wilson's Corners. This has just been improved for visitors and is a grotesquely decorated cave. A few crystals hang from the walls, the stalactitic formations are scarce but the black dendritic (?) patterns on the walls made beautiful Kodachrome slides.

At this point our car creaked for mercy so we left Quebec to cool off at Purdy Lake near Combermere, Ontario, fully intending to stay in the lake for a week. The collecting virus was still active, and we visited Burgess Corundum Mine near New Carlou and MacDonald Quarry near Hybla for some cyrtolite crystals common in the orange calcite.

This was really the end, but Quebec deserves revisiting, which we shall do at our first opportunity. We have added new words to our vocabulary, beautiful slides to our collection and thirty mineral specimens to our cabinet, but the new roadway through the Gatineau Park means fresh roadcuts and easier travel to new collecting areas. Anyone for Quebec?

INFORMATION WANTED BY OUR READERS

What is Mummy amethyst?

Can anyone give me any information whatsoever about "Mummy" amethyst? Presumably this was supposed to be amethyst found in Egyptian tombs. I could find out nothing concerning this but it was suggested that they were a lot of phantom or ghost amethyst xls from Africa.

Sandy Ramsay
1015 Aikenhead Road
Kings Park
Glasgow S4, Scotland

Wants a Geology Camp!

I would greatly appreciate knowing whether there are any camps which specialize in fossil hunting or geology. I am going to be twelve years old this April, and would like to spend a summer in the field.

Robert Dengrove
314 Grassmere Ave., Interlaken
Asbury Park, N. J.

Note on the beach sand from Baltic Sea

By TOMASZ TURLEY

Chicago, Ill.

My note describes the preliminary result of the examination of a sample of the beach sand from the Baltic coast of the town of Gdynia, Poland. The sample of sand is a medium grained, brownish color, received by author from Gdynia with courtesy of Mrs. Helen Wozniak, who visited Poland 1958.

With the kind help of Dr. George DeVore of the University of Chicago, the Baltic Sea sand has been analyzed for the heavy minerals.

This sand, which is predominantly composed of quartz and its varieties, chert, flint, opal—also contains plagioclase, orthoclase and the mica group; magnetite, hematite, ilmenite, limonite and pyrite are also present. Garnet and small amount of chlorite, hornblende and hypersthene with minute amount of zircon were also detected. Fragments of sea shells were also found.

Totally there were determined in this sea sand from Gdynia, 16 minerals but owing to the presence of a fraction of the heavy minerals, especially magnetite, ilmenite, garnet and zircon, the sand is classified as magnetite, garnet, zircon sand. In recent European literature (Hut-

nik, 1950, N 7, *Przegląd Geologiczny*, 1957) there appear a number of articles concerning Baltic Sea sand. These papers deal with the sand's mineralogical composition and possible economical exploitation of some of its metal content as titanium and zircon. The beach sand of Baltic Sea from East Germany (Rostock) was utilized on a small scale for the purpose of obtaining garnet and zircon.

It is interesting to compare the mineralogical composition of the Baltic sand with the Lake Michigan beach sand whose original source is glacial drift. According to Dr. A. Crook, the Lake Michigan sand from the vicinity of Chicago (The Mineralogy of the Chicago Area, 1902) contains as much as 2% of iron ore minerals, mostly magnetite and limonite. Dr. F. J. Pettijohn (*Journal of Geology*, 1931) has determined in the Lake Michigan sand from Chicago 20 minerals. In the heavy minerals group prevails hornblende, augite, magnetite, ilmenite and some garnet and zircon.

The study of heavy minerals is of great importance as a possible indicator of the source and origin in the Baltic beach sea sand.



Baltic Sea coast line near Gdynia, Poland

During the weathering of the magmatic or metamorphic rocks, the most resistant minerals are unaltered and occur in the sand as garnet, zircon, ilmenite or magnetite. Micas do not withstand as well the long process of weathering and transportation, they will undergo mechanical abrasion. The feldspar are more resistant and therefore persist longer.

The beach sands, on the coast of Baltic Sea, are constantly washed out by waves and this process causes the sorting of sand grains by size and specific gravity accumulating the heavy minerals in layered forms.

We can deduce on ground of dates found in literature that the heavy minerals washed out from the glacial deposits, occur commonly on the coastal terraces of the Baltic Sea. Glacial gravel is com-



posed of the fragments of magmatic and metamorphic rocks containing heavy minerals and has been transported during glacial epoch from the old Scandinavian shield.

M & T EXPANDS MINERAL MINING OPERATIONS

NEW YORK—Expansion of mineral mining operations in an 800-acre tract at Hanover County, Virginia, has been announced by James L. Oberg, general manager, Metals and Minerals Division, Metal & Thermit Corporation.

According to Mr. Oberg, "a continuing company program to develop the two-year-old Hanover property has proven that substantial quantities of aplite are present in the ore body. Aplitite is one of a group of minerals used by the glass industry as a source of alumina for the production of colored and flint container and window glasses," he explained. "Alumina contributes improved working properties to the glassmaking operation, and gives better chemical resistance to the finished glass materials. M & T Aplitite, to be produced in two grades, will be an important new raw material source for the glass industry."

Installation of equipment to modify

existing ore processing facilities at Hanover for production of M & T aplitite has been started. The company anticipates that commercial quantities of the material will be available by June, 1960. Reserves are estimated to be sufficient to supply a substantial portion of the glass industry's requirements for the next fifty years, Mr. Oberg said.

M & T opened its Hanover mine approximately two years ago to renew rutile and ilmenite mining operations which were originally carried on at Roseland, Virginia, approximately 80 miles from the present site. Since that time, the company has determined that, in addition to rutile and ilmenite, commercial quantities of aplitite, mica and sphene (a calcium titanium silicate) are present. The new aplitite facility represents the initial move to commercialize these other associated minerals.



WORLD NEWS ON Mineral Occurrences

ITEMS ON NEW FINDS ARE DESIRED
PLEASE SEND THEM IN.

Abbreviations: xl—crystal

fl—fluoresces

xled—crystallized

ph—phosphoresces

xline—crystalline

ALABAMA—It was our pleasure to visit the offices of James Miller Davis (architect), 211-212 Guaranty Savings Bldg., Montgomery, Ala., Monday, Nov. 30, 1959, where we saw on display a fascinating collection of Alabama minerals. One beautiful specimen was a large mass of black botryoidal hematite from a working strip iron mine at Brookwood, Tuscaloosa Co., Ala.

ALASKA—Some of the world's most beautiful epidotes, lustrous dark green xls and xled masses, come from Green Monster Mountain, Sulzer (Prince of Wales Island), Alaska.

ARIZONA—"Would you please identify the enclosed specimen? Have had several different identifications but feel you will give the correct one.

"There's a whole canyon wall of this material near Coyote Springs, Maricopa Co., Ariz."—on label of specimen sent in by Mary H. Sandford, P.O. Box 811, Hampton Bays, L. I., N. Y.

The specimen consists of thin platy white calcite xls in grayish clay.

ARKANSAS—"A HEAP OF PHANTOMS. Number 4271, of my collection of Arkansas quartz, is a small xl, $3/8$ " in diameter and only $1\ 3/8$ " in length, and which contains a series of manganese phantoms.

"These can be seen very good with 5 X glass, but a 20 X glass seems necessary, to see the entire series, and then only from one certain side or m face, and with the light just so.

"I counted a number of times, getting various numbers, as some are so fine and so close together that it is rather difficult to count all of them. There is only one side of the xl, that shows all the phantoms, and the xl, has to be held at an angle, and some of the fine phantoms are double. I counted a number of times, and obtained 76, 79, 81, 83, and 85. There are probably more, but some of the phantoms are comparatively thick manganese lines fuzzy, and no doubt, obscure some of the phantoms. The difficulty too, lies in the fact that one has to change the angle slightly for the base and to the top of the xl, and it is almost impossible to see all the phantom lines. Whatever the number of phantoms, it has the most of any phantom xl, in my collection. This unusual xl, is from near Avant, north-western Garland Co., Arkansas."—item sent in by Byron C. Marshall, 204 Central Avenue, Hot Springs National Park, Arkansas.

CALIFORNIA—"I am sending you two pieces of chromite found in the stream bed of Clear Creek, in San Benito Co., Calif., by my wife, Virginia. She seems to have a built-in sensitivity to the brilliant green coating found on almost all the chromite rocks in Clear Creek, and she sloshes happily along the bed of the creek spotting chromite rocks where I'd have sworn there were none. Consequently we collected a lot of this variety. The green coating is not positively identified. It may be uvarovite (garnet) or green chlorite (penninite)

or zaraitite (hydrous nickel carbonate), all of which have been reported with chromite from the general area."—item sent in by Kenneth C. Brown, 3515 Bennett Ave., Santa Clara, Calif.

Two massive black chromite specimens were received, one was coated by a crust of brilliant green zaraitite.

COLORADO—"At the Brooklyn mine and adjacent prospects in the Red Mountain range near Silverton, San Juan County, Colo., there is marmatite. It is a high-iron sphalerite, with iron replacing the zinc up to 26%; and greenockite in solid solution. It is massive, lustrous black, and associated with pyrite. Sometimes the brilliant black marmatite is sandwiched between bright pyrite and makes a showy specimen. Disintegrates on the dump. It occurs in tiny veinlets and is not abundant."—letter dated Aug. 27, 1959, from Pat Fancher, Box 63, Ouray, Colo.

CONNECTICUT—"Recently, while exploring some abandoned copper mines near my home in Meriden (New Haven Co.), Conn., I discovered some small nuggets of native copper and specimens of malachite, cuprite, and chrysocolla. With the exception of malachite, the others have never been reported from Meriden as far as I could determine."—letter dated Sept. 13, 1959, from Jan Worth (age 16), 98 New Hanover Ave., Meriden, Conn.

DELAWARE—Dark gray chert pebbles have been found on Bowers Beach, Kent Co., Del., by Bob and Hazel Reynolds, Stocksdales Rd., Kingsville, Md.

FLORIDA—"The best collecting in Florida is following a dredge. Most anything can, and does turn up, including the collector if he does not watch his step."—item dated Aug. 25, 1959, from Mrs. Ray F. Bowman, 1791 Sylvan Dr., Clearwater, Fla.

In following the dredge in Gulfport (suburb of St. Petersburg, Pinellas Co.), Fla., Mrs. Bowman found groups of beautiful, platy, golden-yellow selenites. Gulfport is on the Gulf of Mexico.

GEORGIA—The following interesting letter, dated Nov. 30, 1959, was sent in by Clarence L. Boyd, 184 N. Munn Ave., East Orange, N. J.

"Regarding the Christmas gift subscription for my brother, Mr. E. Cecil Boyd, 175 - 11th St., N.E., Atlanta 9, Georgia, you may send it now instead of holding it for Christmas, and I'm sure he will be pleasantly surprised with it and also at being mentioned under 'World News On Mineral Occurrences' (page 494, in the Nov.-Dec. 1959 issue) as having located a vein of gold near Dahlonega, Georgia, along with Mr. Charles Connor.

"There really is gold in 'them thar hills'! I know, because I worked in some of the gold mines in that area in the early 1930's, and have helped to take the amalgam from the stamp mill plates.

"Dahlonega is an Indian name meaning 'streets of gold' and I was told that before the streets around 'The Square' were paved, it was not unusual to find gold nuggets there after a heavy rain. A visit to the Gold Museum at Dahlonega is quite an interesting experience."

HAWAII—Loose, dark green xls of augite (pyroxene) have been found around Haleakala Crater on Maui Island, Hawaii.

IDAHO—A specimen consisting of rough, dark red almandine garnet xls in lustrous black biotite schist has been received from Tupper Jones (Jones Rock Shop), Elk River, Idaho.

"This garnet in biotite schist was found in a road cut on the little North Fork of the Clearwater River in Elk River (Clearwater Co.), Idaho. I found some masses that the garnet alone weighed 8 lbs. This biotite is the blackest I've ever seen—this area is some 30 miles back in excellent fishing country."—note on label with the specimen.

ILLINOIS—"Here are some notes for World News.

"Last July we went on a field trip with the Earth Science Club of Northern Illinois to Buffalo State Park in central LaSalle County, Ill. We found many sam-

ples of the fish-tail twins of selenite. We also found pyrite and marcasite but most of them were badly weathered.

"Then in August we went to the lead mines in Galena (Jo Daviess Co.), Ill., with E.S.C.O.N.I. We visited the dumps of the Eagle-Picher Mine and the Tri-State Mine. We found galena, pyrite, marcasite, sphalerite, and calcite. Many of the boulders on the dumps were crusted with pyrite and calcite and were a beautiful sight in the sun as the pyrite looked green, blue, and gold. Most of the specimens were not top quality, however. We do enjoy these field trips and learn a lot from them."—letter dated Oct. 31, 1959, from Mrs. Edward Yarnal, RR 1, Elburn, Ill.

Buffalo State Park, 5 miles west of Ottawa, Ill., a small, rugged area, contains one of the few remaining herds of buffalo in the country.

INDIANA—Small xls of fluorite have been found in Meshberger Stone Company quarry, 2 miles northeast of Elizabethtown, Bartholomew Co., Ind.

IOWA—From a coal strip mine near Melrose (Monroe Co.), Iowa, we have a specimen consisting of dark brown xline calcite as a vein in black compact limestone. The calcite fl. yellow under long wave. This interesting specimen was donated by Michael Papcun, RR 1, Melrose, Iowa. The calcite occurs in large weathered masses, so Mr. Papcun informs us.

KANSAS—Some months ago we received a very fine calcite xl from Mrs. John Roder (Roder's Coral Museum), Rt. 7, Hot Springs, Ark., 6 miles out north 7. As the locality was doubtful, we had to wait for Mrs. Roder to trace it. Here is her letter, dated Nov. 6, 1958.

"We were told by three different parties that a new find of calcite crystals had been made in the Tri-State District. Supposed to be in a mine which had been worked for 30 years and this was the first of this kind of crystals to be found there or in any of the other mines. Sending a single one and would like to know what you think of it or what you would call it. We were given a name

but according to the books it can't be right. They are beautiful in color as well as in structure. It seems they had just been found recently and we were fortunate in getting a nice supply of them."

A note received some weeks ago informed us that the calcite crystal came from Treece (Cherokee Co.), Kansas.

The specimen is a 1½ inch long, loose, amber-yellow, rounded calcite crystal made up of tiny parallel grouping scalenohedron crystals. It is a very nice specimen.

The Tri-State District is an area embracing S/E Kansas, N/E Oklahoma, and S/W Missouri, which contains some of the largest lead and zinc mines in the world.

KENTUCKY—Southern Illinois and northwestern Kentucky are noted for their fluorite (fluorspar) mines which furnished many beautiful specimens for collectors. The following letter, dated Dec. 23, 1959, from B. E. Clement, Box 69, Marion, Ky., will send a chill down the back of every collector — so brace yourself.

"Most of the fluorspar mines of this area (Ill. and Ky.) are closed and it appears the day is near when fluorite specimens will be like hens teeth—hard to find at all.

"This is due to low cost labor in Mexico and overseas where most of the U.S. consumers get their fluorspar at this date. Domestic mines cannot compete so they close indefinitely.

"I get letters asking for information about finding specimens in dumps. There are no dumps left. Power machinery cleaned the dumps, rock and all, years ago."

Mr. Clement, America's most famous fluorite collector, operated fluorite mines around Marion for many years. Now these mines are closed—perhaps never to be reopened again!

LOUISIANA—Ken Kyte, Box 161, Covington, La., is Louisiana's most active mineral collector. You should see some of his specimens. They are beauties! From a gravel pit near Franklin, Wash-

ington Parish, La., Ken has a 2x4 inch specimen of yellowish chalcedony which has the appearance of a dressed turkey. Wow, what a specimen!

The Editor of R&M paid Mr. and Mrs. Ken Kyte a visit on Nov. 27, 1959, and had a most enjoyable evening.

MAINE—"We are sending you specimens of our fluorescent pegmatite. We found these with the Elk U.V. Light purchased through their ad in R&M. The State has done a spectrographic test on samples which show they contain silicon, aluminum, sodium and traces of magnesium, calcium and iron—and no radioactivity was detected by their sensitive instruments. They recommend we try to have further tests made.

"It is strange to note that the short wave U.V. light does not have nearly the fluorescence as the l.w. Elk light."—a recent letter from Mrs. Stearns Bryant, Winthrop, Me.

A clipping from their local paper, dated Aug. 6, 1959, was sent in by Mrs. Bryant. It refers to the above pegmatite and is titled: "Glowing Hebron Mine Discovered." Part of the clipping reads:

"The discovery that an old mine at Hebron (Oxford Co.) Maine, is fluorescent is expected to create a stir among mineral collectors. The location is the Upper Mine at Mt. Rubellite. The announcement comes from Mr. and Mrs. Stearns Bryant, who made the discovery.

"They have the property under lease, together with Mr. and Mrs. Charles Bragg of Buckfield, Me. All are members of the Winthrop Mining Co. Bragg is a veteran mineralogist and Mrs. Bryant conducts a home mineral shop here.

"Robert Doyle, the state geologist, visited the mine. He says the find is 'remarkable' and a 'definite contribution to mineralogy in the state.'

"He said that while the fluorescence is not valuable from a commercial point of view, it is extremely rare and interesting for collectors and mineralogists.

"Doyle said as far as he knows there are no other deposits of pegmatite minerals in the state that fluoresce, although a lot of places have been checked for it."

Two 3x4 inch specimens were received and they appear to be ordinary looking material typical of many pegmatites. They are quite attractive consisting of large masses of white albite, large plates of silvery muscovite, and small masses of pale smoky quartz. Under the long wave the specimens fluoresce green and orange. The green is colorless hyalite (opal) which thinly coats most of the pegmatite. The orange appears to be small specks of manganapatite but the mineral itself cannot be spotted—it may be an inclusion in the glassy quartz as the fluorescence emanates from the quartz.

MARYLAND—Pink fluorite has been found in limestone near Frederick, Frederick Co., Md.

MASSACHUSETTS — The following letter, dated Jan. 4, 1960, was sent in by Gunnar Bjareby, 147 Worthington St., Boston 15, Mass.

"For the record I like to mention two additional localities of sphene in Massachusetts. The first one is the Baer-Mingolla Quarry in Ashland, Middlesex Co. I first noticed the mineral as micro xls. on a specimen I found there a year ago. At this locality ilmenite is common as plates, straight or curved, covering some rock surfaces, or as small tabular xls with albite xls. The blackish, sometimes purplish, metallic looking ilmenite on the opaque white albite xls make handsome micro as well as macro specimens. With all the titanium oxide around it seemed quite logical that there also should be titanium silicate especially since calcite masses were observed.

"This time there was much blasted rock and it did not take long to locate the sphene. I took out several good specimens with xls ranging in size from a few mm to 4 cm, colorless to pale pinkish brown.

"It may be of interest to other micro specimen collectors to see a partial list of species so far noted at this locality: Chalcopyrite, pyrrhotite, pyrite, hematite, ilmenite, pyrolusite, goethite, calcite, malachite, aurichalcite, quartz, hyalite, albite, heulandite, stilbite, an acicular zeolite possibly natrolite, laumontite, chlorite,

prehnite, muscovite, biotite, actinolite, hornblende, chrysocolla, clinozoisite, epidote and sphene.

"The other locality is the long ago abandoned Construction Granite Co. quarry at Folly Point, Gloucester, Essex Co.

"While on my vacation on Cape Ann, a student at Andover Academy, Mr. E. S. Grew, and I prospected along the rocky shore from Lanesville to Folly Cove. In the quarry I noticed a basalt block which had a surface sprinkled with small light tan colored sphene xls. Grew found another and we secured a few specimens along the edges of the blocks. Other minerals observed at this locality and immediate vicinity are: Pyrite, molybdenite, magnetite, goethite, fluorite, blue quartz, albite, anorthite (brown cleavages in traprock), fayalite, danalite, hornblende, lepidomelane and epidote."

MICHIGAN—From the Mohawk Copper Mine at Mohawk, Keweenaw Co., Mich., we have an attractive specimen, lustrous brown xline ankerite with lustrous whitish greasy quartz. This specimen was sent in by Lyle DeRusha, R 1, Chippewa Falls, Wisc.

MINNESOTA—From John T. Hanson, 7124 Riverdale Rd., Minneapolis 12, Minn., we received the following item, dated Oct. 24, 1959.

"Please renew my subscription to R&M for 2 years. I have been getting R&M for 3 years and find every issue to be a bonanza of helpful and interesting material. Note new address.

"We are now living on the Mississippi River and rock collecting has been pretty good. I've found some nice sized, well colored agates, carnelians, feldspar and jaspers most of which take quite a nice polish."

MISSISSIPPI—Geodes occur in Mississippi! Take it from us, we know and we have seen some. They were collected by Mississippi's most active mineral collector—Jud Locke, 39 48th St., Gulfport, Miss. One specimen in Jud's collection is a 3 inch diameter quartz geode with a cavity full of tiny rock xls. This geode

came from the huge sand and gravel pit at Georgetown, Copiah Co., Miss.

MISSOURI—Mrs. Charles O. Jackson, 247½ E. Broadway, Excelsior Springs, Mo., sent in an interesting specimen consisting of tiny brassy-yellow pyrite masses in pale bluish novaculite (quartz). The specimen was found in Clay County, Mo., on new 69 Highway, 2 miles east of Excelsior Springs.

MONTANA—"In the 'Around the World' department (World News) there very seldom appears any news about Montana's minerals except when Mr. Navratil mentions his interesting finds. His explorations, however, seem to cover mostly parts of western Montana. But, public opinion to the contrary, eastern Montana also has a great variety of interesting mineral specimens to entice rockhounds.

"I shall try during the coming year to have something new from this locality to mention in each issue of R&M. As a start I am sending today a couple of specimens which are found here."—letter dated Nov. 23, 1959, from Hjalmer Johnson, prop. of the Lost Cabin Trading Post (Eastern Montana Rocks), Wibaux (Wibaux Co.), Mont.

One specimen received is an attractive dark brown limonite nodule 3 x 5 inches in size, one face sawed and polished and the interior is a compact, massive brownish limestone. With the interior revealed, the limonite is shown as a band only ¼ inch thick.

"Limonite with lithographic limestone interior. Quite common in S.W. Wibaux Co., Montana."

Good for you, Mr. Johnson, in offering to keep us supplied with interesting mineral notes on Montana. We wish subscribers in other states would follow your example.

NEBRASKA—John Boellstorff, Johnson (Nemaha Co.), Nebr., sent us a few months ago a pebble of gray chalcedony which he had found on his farm. It fl. green under the mineralight.

NEVADA—John S. Albanese, P.O. Box 221, Union, N. J., sent in an attractive specimen consisting of dark green

brochantite encrusting a dark brown quartzose matrix. The locality for this interesting specimen is the Douglas Hill Mine, Ludwig, Lyon Co., Nev.

NEW HAMPSHIRE—"I note in a recent issue of R&M that you (the Editor) specialize in molybdenite.

"I am sending you a specimen of molybdenite from the old Lincoln Mine at Westmoreland (Cheshire Co.), N. H. This mine is located in Westmoreland, a few hundred feet north of the Chesterfield line near the top of the ridge just east of the Connecticut River. Hope this may be of some interest to you."—item sent in by Chester S. Wendell, 34 Middlesex Rd., Darien, Conn.

A 4x4 inch specimen was received. It is full of small lead-gray molybdenite flakes and masses in smoky xline quartz. Most of the specimen is stained by brown limonite, but this does not deter from its interest.

NEW JERSEY—Good fl. material is still available on the dumps of the abandoned zinc mines at Franklin, Sussex Co., N. J., if we are to judge by the two attractive specimens recently sent in by Edward McMullen, 2545 N. Orkney St., Philadelphia 33, Pa. Both are grayish calcites, and both contain small black xls of franklinite. In addition, one contains small, glassy greenish grains of willemite. Under the Mineralight the calcite fl. a deep pinkish red; the willemite a brilliant green.

NEW MEXICO—From the iron district at Orogrande, Otero Co., N. Mex., we have a most interesting specimen that was sent in by William Dillon, c/o Worrell Hall, TWC, El Paso, Texas. The specimen consists of a thin vein of colorless, fibrous selenite in a brown altered serpentine; soft, fragile white halotrichite, and soft brownish to greenish melanterite, coat one end of the specimen.

NEW YORK—The following item, dated Aug. 8, 1959, was sent in by Craig Burton, Box 41, RD 2, Berkshire, N. Y.

"You might mention in World News that brassy pyrite crystals, perfect cubes ranging in size up to 1½" diameter well

defined, can be found in Newark Valley (Tioga Co.), N.Y. Newark Valley (several miles southwest of Owego) is a small hamlet so nobody will have trouble finding the freight depot. Follow the tracks from there to the train trestle on your left. Just this side of the trestle lies a boulder. In there the crystals can be found in abundance. I have collected some really fine specimens and would be glad to trade with anyone interested."

NORTH CAROLINA—A few months ago we received the following letter from J. Alton Price, D-1D University Apts., Durham, N. C.

"Within recent months I have discovered a field of about two acres on the edge of Granville County, N. C., between Creedmoor and Oxford where the following minerals have been found: rare North Carolina banded agate, carnelian, sard, a little opal and light amethyst geodes. The North Carolina agate is considered extremely rare and I have been advised that this is only the third time that this material has been found or reported in North Carolina. It has been found in many colors, such as, red, brown, grey, tan and blue, at this location.

"About five or six weeks ago I guided Mr. James Conley, Assistant State Geologist, to the spot and he appeared very excited in gathering this beautiful material which is not supposed to be here at all. Later I took him to a highway road cut where the material was hard and rather opalized looking, appearing very white. Mr. Conley at once seemed pleased that I took him to this spot because it proved beyond a doubt that the agate formed a 'hard pan.'

"Under separate cover I am sending you some of the smaller specimens to show you the colors, a geode, as well as a piece from the hard pan spot. Some of the material in good clear color is about two inches thick, but mostly about one-half inch to one inch in thickness. Some beautiful stones have been cut from this exquisite gem material."

The specimens turned out to be most interesting and most were of good gem

quality. Among the lot were gray to bluish chalcedony, very good gem quality red carnelian, red jasper on red carnelian, grayish to reddish banded agates, whitish common opal, and small chalcedony geode whose cavity was coated with a thin layer of white cacholong (opal).

NORTH DAKOTA — Dark green xline hornblende found in a newly made road in Hurdsfield, N. D., has been sent in by Florence Newsom, Hurdsfield, N. D.

Hurdsfield is in S.W. Wells County which is in central North Dakota.

OHIO—Brown rattle boxes (limonite geodes) are found in Licking County, Ohio, 17 miles due north of Flint Ridge State Park. Nice specimens have been found there by Byron Purdy, 148 Jefferson Rd., Newark, Ohio.

OKLAHOMA—Some months ago we received a small specimen of silvery-white mica schist from Mrs. Alton Horn, 308 Coolidge, Ponca City, Okla.

"This little specimen is from a gravel pit south of Snyder (Kiowa Co.), Okla. This gravel pit also yielded a $2\frac{1}{2}$ " quartz xl with a phantom xl inside."—on label.

OREGON—From Davis Head, Deschutes Co., Oregon, we have some small pieces of red, cellular lava that were sent in by Mrs. Inez O. Rogers, P.O. Box 184, Oakidge, Ore.

"These pieces are from Davis Head, Ore., where Davis Creek first makes its appearance under a vast high heap of lava."—on label.

PENNSYLVANIA — "Here is something I found in an open pit coal mine at foot of Ashley Plains (Route 309), Ashley (Luzerne Co.), Pa., what is it? —note dated Sept. 28, 1959, from Nick Holly, 131 E. Cranberry Ave., West Hazleton, Pa.

The specimen consists of brown siderite in worm-like masses on whitish quartz, tiny rock xls border the siderite but do not penetrate it.

RHODE ISLAND—A very nice specimen (an old timer) has been received from John S. Albanese, P.O. Box 221, Union, N. J. It is a 2" loose, colorless calcite xl coated with drusy quartz. Most of the quartz is colorless, the rest is brownish.

"Calcite, coated with drusy quartz. Harris Bed, Lime Rock (Providence Co.), R. I."—on label.

SOUTH CAROLINA—A dark gray, banded with brown and white, $1\frac{1}{4}$ inch sq. slab of petrified wood was sent in by Frank L. Sims, 750 "B" Ave., West Columbia, S. C. The specimen has one face beautifully polished. It comes from Bellyache Creek, near Darlington (Darlington Co.), S. C.

"The petrified wood is mostly honey-brown, slightly translucent, and will take a good polish. Unfortunately, about 50% of it is chalky white and will not polish. Sizes are from scrap up to two log sections of about 150 lbs. each.

"Since I wrote you I have acquired petrified wood from other counties of the state and have logged two or three places to check when the water gets down low. I can write you a short note on the other locations of petrified wood if you would like to have them.

"At present I am getting information on locations of Indian Artifacts and keeping a list of them. I have logged about 20 to date. The first two mounds were dug and cleaned out. I hope to find at least one intact."—letter dated Oct. 12, 1959, from Mr. Sims.

SOUTH DAKOTA—Mrs. Ed Olson, Beresford, S. D., sent in an attractive pinkish and white mottled quartzite.

"This rock is from Charles Mix County, Lake Andes, S. D."—on label.

TENNESSEE—Brownish, xled essonite (garnet), sometimes slightly gemmy, has been found in the copper mines at Copperhill, Polk Co., Tenn.

TEXAS—Small nodules of white barite are found in shales south of Glen Springs in southern Brewster County, Texas.

UTAH—"Jasper, chalcedony, Dinosaur Bone, Petrified Wood, U.S. 6 and 50. Price to Green River. Woodside, 39 miles from Price. About 5 miles south from Woodside (Emery Co.), Utah, take dirt road north and west, 4 to 6 miles. Material has been picked up on valley slopes."—Courtesy of Ken Stewart's Gem Shop, 37 South West Temple, Salt Lake City, Utah.

VERMONT—"I am sending you under separate cover a mineral I found in the dumps of one of our local talc mines. I believe it is ankerite but I am not sure. Could you make positive identification for me?"—a recent letter from Kenneth G. Hemingway, Box 315, Chester, Vt.

The specimen is not ankerite but dolomite and it is a dark gray cleavage—very nice.

VIRGINIA—A mass of pinkish coral-loidal aragonite on dark gray limestone was recently sent in by John S. Albanese, P.O. Box 221, Union, N. J.

"Aragonite. New City, Virginia."—on label.

WASHINGTON — On Chumstick Mountain, Chelan Co., Wash., anthophyllite is found as a vein about 1 foot wide in biotite gneiss.

WEST VIRGINIA—Beautiful stalactites occur in the Indian Draft Cave, about 2 miles north of Greenville, Monroe Co., W. Va.

WISCONSIN—"In the southwestern corner of Bayfield County, Wisc., some 20 miles east of Gordon and 2 miles south of Lower Eau Claire Lake, on the banks of Ounce Creek, are two old copper mines. These prospects were worked at the turn of the century and are now abandoned as the ore was too lean. The roads leading to them are impassible so one must walk about $\frac{1}{2}$ mile to them. Native copper, epidote, xline diopside and many of the more common host minerals of copper are abundant here. The gravel pits in this area will produce nice

agates but are few in number."—letter dated Oct. 31, 1959, from Lyle DeRusha, RR 1, Chippewa Falls, Wisc.

WYOMING—At the head of Long Creek in Fremont Co., Wyo., gem quality moss agate has been found.

ARUBA—This is a small Dutch Island in the West Indies (Netherlands Antilles). From Aruba we have a 2 inch mass of milky quartz that was sent in by Bill Learned, Box 566, Lago Colony, Aruba, Netherlands Antilles.

Aruba is an important oil-refining center.

CANADA—"If you are interested in drill cores, here is an odd one for you. It is from an apatite locality, some scapolite and uraninite occurring, near Notre Dame de la Salette, Que., Canada.

"The cavities in the core contain purple fluorite cubes, and clear white xls of heulandite. They are fl. under short and long wave in a pretty yellow green color. Scheelite accounts for the spots that fl. blue."—letter dated Jan. 13, 1960, from Ernest Windisch, 1576 Desmarchais Blvd., Montreal 20, Que., Canada.

A $3\frac{3}{4}$ inch drill core ($\frac{3}{4}$ " diam.) was received. It is gray in color (due chiefly to gray limestone) with lustrous flakes of silvery-white muscovite. Tiny cubes of purple fluorite, clear white xls of heulandite, black xls of tourmaline were also present. No scheelite could be spotted, however. It is a most interesting drill core and we are very glad to have it.

ENGLAND—"Bill Davidson, Penrith, Cumberland, England, has gotten a good crack at me. A pal of his found some small agates, jaspers, etc. upon the field of Flodden, where the English soldiers—"for once, by guile, won the day." Aye they gave us a terrific beating then, and now Bill wants to know if I would like a few souvenirs from that historic spot."—item dated Oct. 20, 1959, from Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow, S4, Scotland.

Flodden is the spot where the Scottish Army, led by James IV, was defeated by the English in 1513.

GERMANY—From Kirk V. Koneczny, Med. Det. (20th Sta. Hosp.), APO 696, New York, N. Y., we received an interesting specimen—coarse, drusy dark brown quartz xls on xline deep purple fluorite.

"Found at Schwarzenfeld, Germany."
—on label.

ITALY—John S. Albanese, P.O. Box 221, Union, N. J., sent in an odd specimen—a $3\frac{1}{2}$ inch disc of dark gray aragonite. We never before saw one like it.

"Aragonite (Scodella). Rio del Gobbo, Vallata dell'Idice, Bologna, Italy."
—on label.

NETHERLANDS — From C. B. F. Helsloot, JV Lennepkade 155, Amsterdam 13, Netherlands, we have 3 pebbles which he had collected in the Veluwe ("barren island"), a sandy tract to the north of Arnhem in central Netherlands.

One pebble was red jasper, another was red jasper with veins of smoky quartz. The last was dark gray petrified wood (1 inch section from a large pebble). All three are of good quality and should take a nice polish.

SCOTLAND—"Lately we have received information and evidence that Scotland could be a perfect paradise for a real go-getter of a rockhound. Archie Forrest (1381 Pollokshaws Rd, Glasgow S1, Scotland), tells me that he sent R&M some cairngorm xls obtained from the big scree on Goatfell, the highest mountain on the island of Arran, Scotland (see Jan.-Feb. 1960, R&M, p. 26). My New Zealand friend was home again and did a lot of mountaineering with another pal of ours. They are friends of Jock Nimlin who gave Archie the xls. I believe that Jock has hundreds of them. I, also, was very lucky regarding Cairngorm xls from Goatfell, as my good friend Malcolm Logan, presented

me with a collection made by his father, the late Angus Logan of High Corrie, Arran, Scotland.

"Visitors to his home had been making off with so many of his xls that Mr. Logan made a large concrete slab and inserted hundreds of xls into it, to prevent theft of same, or a honey tongue beguiling him out of more xls. This is too good for me and I'm turning them over to the Royal Scottish Museum where the best xls will be shown as the Angus Logan Collection. Now can someone tell me how to go about removing the xls from the concrete?—letter dated Oct. 20, 1959, from Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland.

SPAIN—In the July-Aug. 1959, R&M, p. 311, mention was made of the finding of anapaite in the Miocene lacustre (clay) of Prats-Sampson, Lerida Province, Spain as nodules in clay in sizes from 1" up to 3x4". The author of the item was Juan Montal, Plaza Sgdo. Corazon 1, Vilafranca del Panades, Spain.

Since then Mr. Montal has sent in a specimen of anapaite from Prats-Sampson. It is a greenish, drusy, crystalline mass lining cavity of a dark gray 2x2" nodular clay concretion.

Anapaite is a hydrous phosphate of calcium and iron, green to greenish white in color, that was first found in crevices in oolitic iron ore at Shelvesney Rog near Anapa on the Taman Peninsula on the Black Sea, U.S.S.R. The mineral was named after Anapa.

Our Ever Changing Earth

In a Century or two
Old rocks will be new
Limestone to marble, granite to gneiss
Made by an age old earthly vise.
Coal to diamonds, full of light
Millions of days, millions of nights.
If this didn't happen, how would we give birth

To rocks in our ever changing earth?
Michael K. Green (10 yrs.)
Arlington School
Lexington, Kentucky

THE MICRO - MOUNTER

Conducted by Neal Yedlin—129 Englewood Drive, New Haven, Conn.

The recent construction of a dam near the city of Thomaston, Conn., has provided Eastern mineral collectors with the most important new locality since the amazing zeolite finds at Centerville, Va.

In previous columns we have listed some of the things from this area that we have added to our collection, most of which were acquired from Dr. William A. Henderson, Jr., of 17 Old Kings Highway, Old Greenwich, Conn. A letter from him, dated Jan. 28, 1960, tells of his finds, and is descriptive of the region. Bill has been a frequent visitor at Thomaston, and has added 109 m/ms to his collection. Herewith his missive:

"Dear Neal,

"With regard the Thomaston, Conn., locality, I will be very glad to describe the micro mineral material I have found there. Since I have visited the place some seven or eight times, the list is fairly complete.

"First, though, a few words about the locality as a whole and the macro specimens available. The country rock is of two types: a grey, micaceous schist and a light colored rock of granitic or pegmatitic texture composed of quartz, feldspar and traces of dark minerals. Although the contact between the two rock types is sharp, it may very well be that the latter is a product of intense metamorphism of the former, which is itself the result of metamorphism of previously existing rocks.

"Most of the specimen material comes from cracks or faults in the schist or larger veins in the same rock. Minerals to be found in good to fair hand specimens are fluorite, galena, heulandite, pyrite, quartz and stilbite.

"As micro specimens, though, the above, as well as many other minerals, are found abundantly in many forms, and all of a quality which can only be called superb. I think the best way to cover the micro material is to describe the more interesting species and types in

my collection. Each type is represented by from one to twenty specimens, and only one or two minerals are represented by a single micromount. The following is a list of these specimens.

Anatase-TiO₂

Transparent, light blue to brown crystals with tabular calcites on quartz in a schist matrix. The crystals, striated parallel to (001), show the dipyrmaid, prism and base and vary from tabular to elongate along the c-axis.

Calcite-CaCO₃

1. Thick-tabular, white crystals on quartz, showing the hexagonal prism and terminated by a fairly flat rhombohedron. The termination shows striations on the rhombohedron radiating from the center every 120°, while the tip of the crystal shows a very lustrous, trefoil shaped design.

2. Very thick-tabular, cream colored crystals on quartz. The crystals show the hexagonal prism, are terminated by a c-face and are twinned.

3. Positive rhombohedron modified by a small negative rhombohedron. Cream color crystals associated with phillipsite on fluorite.

4. Very steep, yellow rhombohedrons, with rounded, slightly etched faces, found with heulandite.

5. Extremely complex, clear white crystals, almost round but with a great many very distinct faces. Associated with quartz and pyrite.

6. Very elongate crystals, doubly terminated, and showing three rhombohedrons. Associated with phillipsite and pyrite on fluorite.

7. Pseudocubic yellow rhombs on purple fluorite.

8. Clear, glassy rhombs growing oriented on tabular calcite.

9. Extremely flat, hexagonal crystals occurring in stacks of ten to thirty crystals. Associated with and partially coated with pyrite.

Chabazite-Zeolite

1. Very sharp, glass-clear simple rhombs on schist. These crystals are so transparent that the matrix is clearly to be seen through them.

2. More complex crystals formed by modification of the unit rhombohedron.

Chalcopyrite-CuFeS₂

Slightly etched, brassy yellow, striated sphenoids with several modifying faces, on quartz in schist.

Fluorite-CaF₂

Blue, green and purple crystals showing combinations of the cube, octahedron, dodecahedron and quite uncommon tetrahedron. Any one of the above forms may be dominant and one crystal often shows three forms. Fluorite is ubiquitous, being associated with virtually all the other minerals found.

Galena-PbS

Extremely lustrous, sharp, grey cubo-octahedrons, associated with phillipsite, pyrite, sphalerite and wurtzite.

Heulandite-Zeolite

1. Clear to opaque, white to cream color crystals of the usual coffin-shape habit, associated with sphalerite and pyrite as well as other zeolites.

2. Stacks of the above type growing on quartz.

3. Very simple, pseudo-orthorhombic crystals showing what appears to be a prism and base. These crystals are quite small individuals scattered over quartz crystals.

Laumontite (?) -Zeolite

Sharp, white, radiating monoclinic crystals showing a long prism and oblique termination on schist.

Phillipsite-Zeolite

1. Glassy, white, pseudo-orthorhombic crystals showing "prisms", "dipyramid" and "base". Striations on the "prism" and "dipyramid" reveal the monoclinic symmetry. Associated with galena and wurtzite on schist and with pyrite on quartz and fluorite.

2. Clear to opaque cream color crystals in text-book cruciform twins with the same association as above.

3. Skeletal crystals of the above types showing only a very thin outer wall of the original crystal. Associated with pyrite on quartz.

Pickeringite (?) -MgSO₄·Al₂(SO₄)₃·22H₂O

Cream color, fibrous, radiating crystals of indistinct form on schist. Crystals give a positive test for magnesium, aluminum and sulfate.

Pyrite-FeS₂

1. Very sharp, gold color crystals showing the cube and octahedron. These crystals, like the fluorite, appear in large numbers in almost any association.

2. Extremely bright crystals showing the cube only. These are associated with limpid quartzes of great perfection.

3. Cubo-octahedrons elongated greatly along one axis to give acicular crystals.

4. Cubo-octahedrons with smaller oriented cubo-octahedrons growing at each corner of the crystals and sometimes along the sides as well.

5. Club-shaped crystals resulting from the combination of an acicular crystal and an oriented "normal" crystal.

6. Peacock-blue, tarnished crystals showing the octahedron alone.

Pyromorphite-Pb₅(PO₄)₃Cl

Apple-green, acicular crystals with wulfenite, on slightly etched, massive galena.

Quartz-SiO₂

1. Extremely clear, limpid quartzes with great perfection of form.

2. Crystals showing s-faces.

3. A single crystal showing nothing but an almost complete trigonal dipyramid. This crystal as well as several others showing uncommon forms or extreme distortions of the more common ones appear to be a result of regrowth of a fractured or splintered crystal. Many seams in the schist show evidence of movement which fragmented the quartz crystals on the walls. These fragments then proceeded to repair themselves and in so doing grew in a manner in which a perfect crystal would not.

Sphalerite-ZnS

1. Cube modified by positive and negative tetrahedrons. These crystals are very sharp and range in color from jet black to a deep red-brown.

2. Text-book penetration twins showing a six-rayed star.

3. Pseudo-hexagonal stacks of flat plates resulting from repeated twinning on the cube face.

4. Oriented overgrowths of sphalerite on wurtzite and wurtzite on sphalerite.

Stilbite-Zeolite

1. Cream color, radiating groups of crystals of the usual form.

2. Glassy, colorless, very sharp crystals exhibiting pseudo-orthorhombic symmetry. Individual crystals on quartz with heulandite and pyrite.

3. Fans of white, radiating crystals on quartz.

Wulfenite-PbMoO₄

Acicular, orange crystals with pyromorphite on galena.

Wurtzite-ZnS

1. Extremely fine, dark brown crystals, repeatedly twinned to give stacks of pie-shaped crystals. Associated with sphalerite, fluorite and heulandite on quartz, these crystals are without a doubt equal in quality to those from any other new world locality.

2. Oriented overgrowths of sphalerite on wurtzite and vice versa.

"I have little doubt that several more species will turn up at Thomaston. The locality is far from exhausted. The area is a fabulous place for those who are interested in micromounts, for the variety of minerals, crystal forms, and crystal habits are best observed under magnification.

Sincerely yours,
Bill."

An advertisement in the January, 1960 issue of a western mineral magazine practically tore a hole in the ceiling of

our domain, for we were seated in our study when we read it, and we jumped. Normally we disregard inaccuracies in articles and advertisements, but this one was just too, too much. For the sake of everyone devoted to collecting perfect mineral specimens, whether cabinet, thumbnails or m/ms, we must comment and enlighten the uninitiated. This was the ad:

"Rock collectors attention. Micromounters, have fun with floor sweepings from my rock work shop. Big variety. \$1.00 per pound, postpaid!"

WELL! Floor sweepings indeed!

In the first place, what is usually a fine specimen for "cabinet" collectors isn't usually good enough for micromounters who will smash up a 3"x4" specimen to find something suitable for viewing under the 'scope. And to the cabinet specimen collector, any massive material suitable only for cabochons, tumbling, slabbing or mounting in fireplaces isn't worth drawer space. So that when rock work-shop floor sweepings are offered for sale to m/m collectors there is indicated a woeful lack of knowledge on the part of the guy creating said sweepings as to what's going on around him. And what of the editorial staff proof-reading such copy? Are the members, too, unaware of the standards existing? Or is the attitude one of "Send us a check and we'll place your ad, regardless."

Gentlemen, let's get with it.

A note from J. E. Byron, P. O. Box 844, Boulder, Colo., tells of an extended collecting trip through Mexico, Central America, Canal Zone and South America. He returns on May 15, 1960, when a new catalog of m/m specimens will be prepared. Mark your calendar now!

RICHARD F. GOOD (Obituary Notice)

Richard F. Good, of Route 5, Van Wert, Ohio, died suddenly of a coronary occlusion on October 7, 1959. Mr. Good was a rock dealer.

Our sincere sympathy is extended to Mrs. Good on her great loss.



Olivine sand from St. Lawrence Island, Alaska

We are indebted to Frank Waskey, Oakville, Wash., for this interesting sand sample which is a medium grained black sand consisting chiefly of black lava with green glassy olivine and smaller amounts of black magnetite and a tiny amount of white sea shells.

"Beach sand collected during August 1959 by Glenn Murphy of Selawik, Alaska. Sand comes from the north shore of St. Lawrence Island, near Gambell Village. North Lat. 63°-50', West Longitude 172°.

"About 12 miles southeast of International Date Line and 30 miles south-east of Cape Chukotsky, Siberia."—on label.

St. Lawrence is a large island in the Bering Sea and west of the mainland of Alaska.

Garnet sand from Little Chebeaugh Island, Maine

From Little Chebeaugh Island, in Casco Bay, Cumberland Co., Maine, we have two sand samples that were sent in by Kent Thurston, Mousam Road, Springvale, Maine. One is a fine grained reddish sand consisting chiefly of pinkish garnet and quartz (colorless, smoky) with some brownish feldspar, black lustrous magnetite and a few grains of colorless zircon (fl. orange).

The other sample is a fine grained gray sand consisting chiefly of quartz (colorless, smoky) with some pink garnet, brownish feldspar and black magnetite.

Both sands found at the same place, Sept. 19, 1959"—on label.

Beach sand from Onslow Beach, N. C.

Onslow Beach, in Onslow County, N. C., is on the Atlantic Ocean. From this beach we have a sand sample that is fine grained and gray in color, consisting chiefly of colorless quartz with a small amount of sea shells (white, gray, brown).

"Sand collected by Robert King, c/o American Chain and Cable Co., 279 S. Penn. St., Wilkes-Barre, Penn."—on label.

Shale sand from near Benjamin, Texas

From an anonymous reader we have this interesting sand which is dark red and medium grained. It consists entirely of red shale.

"Found 20 miles north of Benjamin, Knox Co., Texas, on Texas Hwy. 283"—on label.

Creek sand from Newport, Wash.

Charles C. Smith, Rt. 3, Box 20, Newport, Wash., sent in the following sample which is a fine grained, gray sand. The sand consists of quartz (colorless, smoky, reddish), gray to reddish feldspar, and silvery white muscovite:

"Sand from a small creek on my ranch near Newport (Pend Oreille Co.), Wash."—on label.

River sand from Afghanistan

"I left Indoneasia about a year ago and travelled about six months arriving home last January. I was over a month in the Soviet Union and another month in the Middle East. I am sending you a few sand samples which I picked up for you on the way home.

"The sand from the Bamian Valley in Afghanistan came from about 200

miles northwest of Kabul. It was a bit to the east of the Bamian Valley and in a brisk cold stream which we had to ford nearly up to our waists in order to get to the cliffs where the Red City was carved out of the hills, the Red City made famous by Genghis Khan when he killed every man, woman and child and domesticated animal in the city to avenge the death of a son killed in warfare in the valley. The city was betrayed by a girl who had fallen in love with a soldier and revealed the secret trail to the water supply. The rocks in the stream hurt my feet so, I did not want to retain a memory of them, but now I wished I had picked up some."—letter dated Aug. 16, 1959, from Miss Natalie E. Nason of Alexandria, Va., but whose address now is 7th Inf. Div., APO 7, San Francisco, Calif.

Kabul is the capital city of Afghanistan, a country which is not friendly to foreigners so Miss Nason was fortunate in being allowed entry. R&M is also very fortunate in receiving the sample which Miss Nason collected for us. The sample is a dark gray, coarse grained sand consisting of quartz (white, smoky, red, yellow, also gray chalcedony) and rocks such as gray limestone, red sandstone (also gray), and brown clay. A very tiny amount of black magnetite also present.

Beach sand from Curacao

Curacao is a Dutch island in the West Indies. The island is about 36 miles long and from 3 to 7 miles wide, quite hilly, with rocky ridges rising to 1200 feet. Willemstad, on the west coast, is the capital and largest city. About 2 miles north of Willemstad is the swank resort of Piscadera Bay with a beautiful sandy beach. From this beach (Piscadera Bay Club Beach) we have a sand sample that was collected for us by Paul O. Drury, 17965 Arbolada Way, Tustin, Calif. The sample is a gray, medium grained sand consisting entirely of gray coral and gray sea shells.

Dutch West Indies is now known as Netherlands Antilles.

Desert sand from Great Syrian Desert, Iraq

"I am enclosing a sample of sand from the Great Syrian Desert which I collected

near the Baghdad-Amman highway about 150 miles east of Rutba in western Iraq. I am not a sand collector, however, this sanded portion of the desert was indeed a beautiful sight. Never before was I so impressed by the beauty of sand.

"Sometime ago, while I was in Iraq, you wrote and requested a sand sample from the Tigris River in Baghdad. All I could find was mud."—letter dated April 16, 1959, from Wm. C. Weigelt, Jr., 121 Albert Ave., Aldan, Pa.

The sample received is a fine grained, reddish brown sand consisting almost entirely of quartz (colorless, smoky, milky—stained reddish-brown by clay) plus a tiny amount of lustrous, black magnetite.

Quartz sand from Malaya

Malaya, in southeastern Asia, is noted for its tin mines. From one of the mines we have a sand sample that was collected for us by Mrs. Sylvia Czayo, Am. Embassy, APO 205, c/o P.M., New York, N. Y. The sample is a fine grained, gray sand consisting of colorless quartz and gray clay.

"Sand from the Sungei Besi tin mine, near Kuala Lumpur, Malaya, I was there for 3 weeks. Thought you might enjoy looking at the sand grains."—on label which was dated Aug. 7, 1959.

River sand from Krakow, Poland

We are indebted to Tomasz J. Turley, 2101 N. Kedzie Ave., Chicago 47, Ill., for this interesting sample which is a fine grained, dark gray sand. It consists of quartz (smoky, brownish, colorless), flesh-colored feldspar, silvery-white muscovite and a very tiny amount of black magnetite.

"I am sending you a sample of river sand from Poland. Sand was collected from western shore of Vistula 'Wisla' River near Krakow, Poland, by my friend H. Wosniak of Chicago. Mr. Wosniak visited Krakow in summer of 1958 and collected this sample of sand for me.

"Wisla is the Polish name for Vistula."—letter dated Aug. 3, 1959, from Mr. Turley.

Limestone sand from Sochi, Russia

Sochi, in southern Russia, is on the east coast of the Black Sea. The sample is a coarse grained, dark gray sand consisting almost entirely of dark gray limestone with a few whitish sea shells (some shells fl. yellow under short wave and a whitish yellow under long wave). The sample was donated by Miss Natalie E. Nason of Alexandria, Va., but whose address now is 7th Inf. Div., APO 7, San Francisco, Calif.

"The sand from the Black Sea is at a beautiful resort, a day and night trip by ship east of Yalta, called Sochi. Yalta is beautiful, too, but I stayed longer in Sochi and went swimming there."—letter dated Aug. 16, 1959, from Miss Nason (see River sand from Afghanistan, in this issue).

Beach sand from Oskaig, Raasay, Scotland

Oskaig, on the eastern shore of the Sound of Raasay, is in western Raasay. From the beach at Oskaig we have a sand sample that was sent us by Sandy Ramsay, 1015 Aikenhead Road, King's Park, Glasgow S4, Scotland. The sample is a

very fine grained, dark gray sand consisting chiefly of colorless quartz and olivine (pale greenish to so dark a green that it looks black). Minor amount of black magnetite also present.

Raasay, off the west coast of Scotland, is an island 14 miles long.

Beach sand from Crown Point, Tobago

Tobago, an island in the British West Indies, is 26 miles long and 7 miles wide. On the southwestern corner of the island is Crown Point, a breeze-swept promontory about $\frac{1}{4}$ mile from the airport. From the beach below Crown Point we have a sand sample that was collected for us by Carl B. Richardson, 3302 Terra Alta Blvd., Tucson, Ariz. The sample is a very fine grained, brown sand consisting entirely of sea shells (brown, white, some pinkish) with a tiny amount of black magnetite and colorless quartz.

"Beach sand, Crown Point, Tobago, British West Indies. I collected the sand personally in August of this year (1959) while on a vacation trip."—on label.



A view of the famous precious opal field at Lightning Ridge, N. S. W., Australia. Photo taken by Francis Hoover, 11526 Burbank Blvd., North Hollywood, Calif., when he and Mrs. Hoover visited Australia in 1958. Mr. Hoover is a noted gem dealer (see his ad on page 185 in this issue).

FRANK A. PITTS: A 91-YEAR-OLD MICRO-MOUNT ENTHUSIAST

By B. M. Shaub
159 Elm St., Northampton, Mass.

Our venerable friend, Mr. Frank Pitts, and a friend he is to all who visit him at his home near Minot, Maine, is a real "downeast" native for he was born in the town of Buckfield, Oxford County, Maine, on October 24, 1868. The farm on which he first saw the light is only three-quarters of a mile north of the famous Paul Bennett feldspar mine which has yielded many fine and rare mineral specimens.

When Frank was a year old his parents moved from the farm of his maternal grandfather in Buckfield to Livermore and located near the residence of his grandfather Pitts. He was educated in Livermore and remained there until he was 20 years of age when he journeyed to Boston to take a position in the freight office of the Southern Division of the Boston and Maine Railroad. After four years of work with this railroad, he returned to Maine and purchased a farm near Minot in the town of Poland. There he developed a dairy of 30 head of cattle which included 15 cows which he milked, shipping the milk to Portland by way of the Grand Trunk Railway. The station was two miles from his farm but he never missed the early morning train even on the coldest days when he had to warm the bridle bit before inserting it in the horse's mouth. The farm consisted of 175 to 200 acres of which 35 to 40 were farm lands.

Mr. Pitts has lived on the farm for 65 years and during this time he has developed a knack and skill for making useful things with materials at hand. This skill is evidenced in the ingenious micro-mount illuminator he built a few years ago.

When the farm work became too heavy Mr. Pitts sold off his stock, and, accompanied by his mother, he went to Florida for three winters, spending the intervening winters at Minot. They made the trip to and from Florida on a coastwise steamer which made frequent stops along the Atlantic seaboard thus making the

trips more enjoyable. While in Florida during the winters Frank worked in the orange packing establishments where his adeptness and skill with the hammer gave him an advantage in nailing down the covers on orange crates. At St. Petersburg, Florida, he built a small cottage which he later sold. He now regrets the sale of his Florida home as he would like to spend his winters now in the sunny South rather than in the town of Auburn.

When he no longer took his mother to Florida he remained on the farm winters and acquired a few head of stock, and during the summers he worked for nearly a decade at the canning factory at Minot Corners where the plant was engaged in canning sweet corn grown nearby.

In spite of a busy life at hard, invigorating work, Mr. Pitts told the writer that he can't remember when he first became interested in minerals, an event which occurred more than four score years ago. Although his daily work with his herd of milk cows kept him from making extended collecting trips during his active years of farming, he did manage to visit the local mineral deposits and acquired some fine specimens from the dumps.

On a piece of property he acquired from a Mr. Hackett there was a garnet prospect that had been opened up by William P. Damon and Martin L. Keith. These miners had obtained some very exceptional specimens which had found their way into many museums and private collections. After making the acquaintance of Harold Tenney, a mineral collector of North Livermore, these men together reopened the garnet property and obtained many fine specimens which were marketed by Mr. Tenney from his store in North Livermore. With some of the specimens from his mine and other Maine mineral localities Frank was able to exchange specimens with the many mineral collectors who visited him at his home,

and such exchanges augmented greatly the many fine and unusual specimens Mr. Pitts had in his cabinet, Fig. 1.

Frank's interest in micro-mounts is a rather recent innovation for it has been only about five years since he has been working with these minute, showy and intriguing mineral specimens. During the years he collected at Mount Apatite, Mount Mica, Noyes Mountain and other localities, he collected many of the interesting, drusy specimens, containing fine, minute crystals, which were discarded by the mine operators. The small crystals in such specimens intrigued him to become a micro-mounter. Within the drusy cavities of the specimens, after being reduced to micro-mount size, were to be found many excellent micro-specimens of the colorful and rare cavity minerals including the multi-colored tourmalines,

cookeite, beryl, quartz, apatite, lepidolite, albite, spodumene, amblygonite, herderite, eosphorite, rose quartz, columbite, cassiterite and many others. The numerous specimens he has collected from the various types of deposits have given him a fascinating array of subjects to examine and to identify with his simple microscope.

This device consists of a tube fitted with an objective and an eyepiece to give about a 20x magnification. It is mounted on a small inexpensive stand and the illumination is provided by a unique home-made device which gives a bright spot about two inches in diameter. The illuminator Mr. Pitts constructed in the form of a wooden tube of square cross-section and about two feet long. At the upper end was placed a sealed-in photo-flood light and at the other he arranged



Fig. 1

Mr. Frank Pitts standing between two of his mineral cases and admiring one of his fine garnet specimens obtained from his garnet mine.

lite, white, cascous var-n a ine tro- ted ive ted the que ht he he ss- he co- ed

a three-inch reading glass on a slide. The glass focuses the light from the lamp onto the micromount beneath the objective of the microscope and thus it is possible to view and identify the small crystals. Mr. Pitts has collected from the productive mines at Oxford and Androscoggin Counties a considerable quantity of the pockety material discarded to the mine dumps. From this material he has extracted about 1000 specimens; some are excellent, many are of fair quality and others descend by diminishing grades.

After the large porous drusy pieces are broken down to expose the many small cavities with their fine crystals, the small pieces are sorted out according to the minerals present and graded as to their quality. The better ones are placed in what he calls his temporary wooden mounts while the poorer ones are kept loose in boxes.

Frank makes his own mounts in his shop. These mounts are made from pine sticks one inch four-square and a couple of feet long. Some are larger and made from pieces having a $1\frac{1}{2}$ inch square section. These are scribed with a center line down the length of one face and then along this line spaces are laid off at half inch intervals. At every inch mark a line is squared across the stick and at the other inch intervals holes of various diameters are bored into the wood to accommodate the various sized specimens. The holes end before the point of the bit emerges on the opposite side. The final step is to cut the sticks in a miter box at the squared off lines. Into these blocks the specimens are temporarily mounted or sent through the mails to other collectors without injury to the specimen which is held in the mount by crumpled paper pressed in around the



Fig. 2

The person to be pitied is one who, after retirement, has no activity to delve into from day to day. Not so with Mr. Pitts. There is never a dull moment, for his leisure time is devoted to his micro-mounts and larger mineral specimens.

sides. A few of these mounts may be seen on the table near the microscope in Fig. 2.

For a number of years the writer has made regular stops to see Frank while visiting mineral deposits in Maine and it is a rare occasion when Mr. Pitts is not seated at his microscope enjoying his small crystals and he is always willing and happy to tell his visitor where they were obtained and how to reach his favorite collecting spots. During the past two summers while busy collecting material for a publication on the history of the minerals of Maine it has been the writer's pleasure to drop in to see Mr. Pitts from time to time for he knows many of the old timers and also much about the mineral deposits. Collectors are always welcome to visit him while he is at his home near Minot during the summer. Once, upon parting, he said to me, "When you go by again don't miss stopping."

Frank A. Pitts is an honorary member of the Oxford County Mineral and Gem Association. During the first year of the Association's existence and five other well-known Maine mineral collectors were elected honorary members. At the October 1959 meeting, the members of the Association present signed a card conveying their greetings to their oldest member. When the card and a birthday cake were delivered, he very modestly remarked, "I don't know why people should do things for me as I never do anything for other people." The truth is that Frank is one of the most generous collectors and often accompanies others to his mine where they are welcome to search the locality for the excellent brown garnets and other interesting minerals found there. Many collectors have also received from his hands specimens he has collected over the years from the mines of Oxford and Androscoggin Counties.

American Federation of Mineralogical Societies 1960 Junior Essay Contest

Once again the American Federation of Mineralogical Societies is sponsoring a Junior Essay Contest.

The contest is open to any boy or girl, 16 years of age or under as of June 30, 1960.

All juniors are urged to enter essays and try to win one of the U.S. Savings Bonds or Cash Prizes. The complete Official Rules are given below.

RULES FOR AMERICAN FEDERATION 1960 JUNIOR ESSAY CONTEST

1. Any boy or girl, 16 years of age or under as of June 30, 1960, is eligible to compete.

2. Each essay shall be entirely the work of the person entering the contest.

3. The subject of the essay shall be: "Here's what I like about being a Rockhound."

4. The essay shall be between 500 and 700 words in length.

5. Prizes will be awarded at the 1960 convention of the American Federation at Eureka, Calif., July 8 through July 10, 1960.

6. Contestants need not be present at the convention to win. If winners are not in attendance, prizes will be mailed.

7. The prizes to be awarded will be as follows:

First Prize \$100 U.S. Savings Bond, Series E; Second Prize \$50 U.S. Savings Bond, Series E; Third Prize \$20 in Cash; Fourth Prize

\$10 in Cash, Fifth Prize \$10 in Cash.

8. Deadline for mailing entries will be midnight, May 1st, 1960.

9. No entry blanks are required. Simply mail your entry to:

W. H. de Neui, Contest Chairman,
6600 Cornelia Drive,
Minneapolis 24, Minn.

10. All manuscripts submitted will become the property of the American Federation of Mineralogical Societies, to be used in any manner they may see fit.

11. The decision of the judges shall be final.

Strickland Quarry Closed to Collectors

The following will save rockhounds a needless trip. Recently I was at the Collins Hill or Strickland Quarry, near Portland, Conn., and found it closed to collectors. There were cables barring the way up the road to the quarry to which was attached a "No Trespassing" sign.

There were three large signs on trees near the entrance to the quarry which read: "Visit the Slocum Gem Mine, East Hampton, Conn., Drilling and Blasting Every Day. You Pay \$60.00 per day and Keep three-fourths of What You Find." There were no names as to who closed the Portland, Conn. quarry.

Llyod Cunningham
264 Hempstead St.
New London, Conn.

THE AMATEUR LAPIDARY

Conducted by Major George W. Owens, U.S.A.F. (Res.)

Queries and correspondence should be mailed to R&M Attn: The Amateur Lapidary

THE RUBY

As all types or varieties of corundum are similar in their physical properties, the name *Ruby* actually is applied to red corundum. Only the transparent to translucent reds are ruby. The opaque red is corundum. Also, very light red or pink is not ruby but either corundum or sapphire, depending on quality.

Advertisements offering "ruby matrix specimens" when the specimen is actually opaque corundum of a reddish color is misleading.

The Federal Trade Commission has this to say about ruby and certain other gems: "It is an unfair trade practice to use the word 'pearl' or the word 'diamond', 'ruby', 'sapphire', etc. or the name of any gemstone in such a manner as to mislead or deceive purchasers, prospective purchasers, or the consuming public into the erroneous belief that the product is genuine. This rule also includes definitions of the gemstones. These definitions include: 'Ruby'. The name ruby is given to the transparent to translucent variety of the mineral corundum. Its color is red with only limited traces of other tints or hues. Corundum which is opaque or more purple or violet than red is not ruby and should not be represented as such."

So how about cleaning up those fabulous offers of ruby we are all receiving these days? One large dealer is particularly bad about this sort of thing. His offers of both opal and ruby make each piece sound like it had just been released from a museum.

There are several varieties of ruby, namely:

Ruby—This includes all transparent and translucent medium to dark tones of red.

Star ruby—Ruby that has asteriaism.

Cat's-eye ruby—Ruby with a sharp narrow chatoyant band. Such gems are ex-

tremely rare. More common are rubies showing a broad or diffused band or cloud which resembles adularescence more than chatoyancy.

Rubies have been found at various locations in the world including the U.S. Perhaps the most valuable are found in Burma, Siam (Thailand) and Ceylon also produce this gem. The Siamese types are generally a very dark red while the Ceylon type is of light tones and high brilliance.

Rubies have also been found in Montana and North Carolina. The American locations apparently have never produced any gems of note or large size. We recently cut a small (1.25 carat) deep pink Montana gem that had been presented to us by Mr. Dick Mitchell of MDR Co., 4853-R West Jefferson Blvd., Los Angeles 16, Calif. MDR is the maker of a fine line of cabochon and faceting equipment. Most of us are familiar with this top brand name. Besides making excellent equipment, Dick is also a very superior hand at faceting. If you are considering buying any equipment, consider the MDR brand.

Rubies when found, seem to come in bunches—that is, they are found in quantity—but few of quality. We have seen bags of ten-pound weight in "rubies"—not a gem in the lot. In fact, on our recent trip to London we were offered one such sack of some twelve-pound weight for just a few shillings. Since the XLS were too large for sandpaper making and too broken for specimens, the offer was refused. About one percent of all rubies mined are of gem grade. Of this about one percent will be of top grade. One out of a thousand may be of extra fine grade. Rubies contain cracks, clouds, "white" spots. The needle type inclusions are known as "silk". Silk does

not necessarily detract from appearance of the gem and according to some authorities, is actually desirable as it proves the natural origin of the gem. Rubies showing no flaws under a regular ten-power loupe are exceedingly rare in any size. Actually, among jewelers, color is considered to be of more importance than perfection. The most valuable color is aptly termed "pigeon's blood". Color in ruby may be uneven (as it is in amethyst) or spotted. This affects value just as it does in amethyst. Stones grading into opaque gray/red are not considered to be gems except possibly in star ruby.

Star ruby is indeed a beautiful and lovely gem. It is also one that is seldom seen in amateur circles. The great majority of star ruby in our hands is of such low grade as to be about one step above sandpaper material. This is a shame because good asteriated material or cut stones are available. International Import Company, 128 N. Parkwood Drive, Forest Park, Georgia, did have some material and cut gems. A letter to them may yield results. Mr. Bruce, who is a collector of considerable acumen as well as a dealer, will supply you in the grade you desire if it is available.

Mr. E. E. Joachim of 1710 Inverness Avenue NE, Atlanta, Georgia, can supply you with a fine cut ruby. While "Jo" has no rough, his cut gems are of the finest. "Jo" also has some of the most beautifully cut precious white topaz we have ever had the pleasure of viewing, and most reasonable, too! Why not query him for that gem you have been trying to find. Chances are he has it.

The more transparent a star ruby, the greater the value. Cloudiness and off-colors (gray/brown) decreases value. Rays of the star should meet at the top center of the stone. The rays should all be equally sharp and well defined. Girasol effects, or wide bands, are not desirable. Likewise broken rays, cloudiness, rays crossing at a point other than the top center of the stone, and opaqueness are causes to decrease value. Remember, however, a star stone of any type should always be viewed from a single light source.

Light from several sources, or diffused

light from a single source will not show any star stone to good effect.

Causes of asterism in corundum are probably reflection from inclusions or tubular cavities along hexagonal symmetry lines.

We mentioned the principal sources for ruby, however, they are also found in Madagascar, New South Wales, India, and Afghanistan—for you who have contacts in these far-off places, a letter to your friends might result in your finding a fine specimen. A lady we know corresponds with missionaries of her religion and has had considerable success in obtaining specimens by this means.

Ruby is fashioned in any of the faceted style of cuts. We prefer the oval cut; however, it may be in brilliant, mixed or step cuts. The small Montana rough was fashioned in a calf's head cut and is very pleasing and lively. Usually the best color will be obtained in direction of optic axis which corresponds with the principal axis, parallel to the side of the XL. Naturally, all star stones or stones displaying any phenomena are cut en cabochon. Usually, the backs of such stones are not polished; however, this is not true in all cases.

Ruby has unusually strong dichroism, a high SG, and a high RI. Corundum is the hardest of all our colored gems. MDR (previously mentioned) makes a special lap for polishing corundum that is highly satisfactory. We use diamond bort as the polish agent. "6400" grit or even higher, will give a fine polish on this lap. Polish time is relatively fast. It is understood that a bronze lap and aluminum or fuller's earth will also give a high polish on corundum, but we have not tried this method. Angles used by us to obtain really brilliant stones are 40° for the Pav, 40° for the crown. Our 400 diamond bort charged bronze lap does a fine cutting job. On several stones we have gone over the facets again using another lap charged with 800 bort. Polish in both cases was equally fast and no particular advantage was noted by cutting the second time with the 800 bort. It is entirely possible, however, that a second cutting using 1200 bort may decrease polishing time.

Ruby is most precious and every effort should be expended to obtain the best cut and the highest polish possible. Since no two pieces of rough are exactly alike it is impossible to tell you which cut will yield the finer appearing gem. Usually the shape of the rough will determine the style. It would be a great weight loss to cut a square bit of rough in the brilliant fashion. A step cut gem is also beautiful and equally desirable. Extra facets may be placed on such stones to decrease the area to be polished at any one time. In fact, an extra row of steps seems to enhance the beauty of most gems fashioned with the step cut. Fine rubies have great value. In our list of precious gems the ruby ranks just below emerald and above diamond. So do not order a bit of rough for a \$1.98 and expect to cut a flawless five or 10 carat gem! Such things are just not done, even in this day and age. Good rough can be obtained and appears on our markets from time to time. A standing order with your favorite dealer should get results. Since ruby is a corundum it is no more difficult to cut or fashion than sapphire. Since it is harder to obtain, careful planning prior to cutting is essential if you are to retain maximum weight and obtain the most beauty. Actually, ruby is a trifle softer than sapphire and seems to polish and fashion faster. For those of you who have never fashioned a ruby gem—try it. You are certain to be pleased if you work with the same care you use in cutting any other gem. For those who do no faceting but are building a collection of fine gems, add a ruby to your collection. Arrange it in your case or display box and point it out to your friends. Not only is a ruby specimen, regardless of size, essential in any well-rounded general collection, but it is also a gem of great beauty.

When writing to dealers or people whose addresses appear in this column, we would appreciate it if you told them you saw their names here. For dealers who have anything special in the faceting line we are always happy to mention the fact here—provided we have an opportunity to examine your ware. This is mentioned because lately we have had several

requests to advocate certain materials but never received any samples. *We will not* recommend any item that we have not examined. This is the only way we can keep faith with the readers of this column.

We have recently received two postcards—one requesting a precious topaz for study, the other one requesting information on lapidary equipment. Neither had a return address. We are most willing to answer any query but would appreciate a letter instead of a postcard. Such cards are almost impossible to file and usually the writing or typing is blurred from just being in the mail. Your cooperation in this will be appreciated.

I received a very nice letter from a chap named Spender. He suggests that dealers consider offering a "kit" or set of slabs or cab blanks of different materials and a set of preforms in gems, such as amethyst, aquamarine, topaz, etc. The kit should be made with the beginner in cabochon and facet work in mind. Cost should be nominal and a pamphlet giving cutting and polishing instructions included. We believe a kit containing a dozen cabochon blanks and a dozen preforms of the more common gem materials such as quartz, amethyst, garnet, aquamarine, topaz, citrine, etc. could be assembled and offered by some eager dealer for a reasonable price. Please write us about your ideas on this subject.

Mr. Kenneth Parkinson, 11 Fitzroy Street, Hull, England, writes to tell us that he has just obtained some very excellent three-color "onyx" agate blanks. You people who do carving or would like to try your hand at intaglio making, write him a letter and include a dollar. He will send you one or more of these blanks. We have examined them and they are nice. Ken has some very fine gems and his prices are most reasonable. Query him for that rare stone you have been seeking.

To answer several recent queries by those beginning to facet, Captain John Sinkankas' book *Gem Cutting* is one of the best on the market. It can be obtained from R&M. This book thoroughly covers cutting procedures and polish technique for most gem stones and is well worth the price.



Fossil Department

Short items on fossils and their localities are wanted.

Please send them to the

Fossil Department (Rocks and Minerals), Box 29, Peekskill, N. Y.



ARIZONA—"I am sending you one of my packages of 12 classified fossils for \$2.00 with my compliments. I have been selling them for 21½ years and have never had a complaint.

"I would also be very pleased to send you bits of information concerning fossils and their collecting areas, from time to time, for your Fossil Department.

"I am a native of western Connecticut and as I glance through R&M it brings back many memories. Of course I wasn't a collector in those days. It is a grand hobby."—letter dated Jan. 1, 1960, from Clifford H. Earl (Museum of Fossils), Box 144, Sedona, Ariz.

The specimens arrived and they make a nice collection. Though the fossils are small, they are all loose, very attractive, and neatly labeled. Two of them are brown shells labeled:

"Brachiopods. *Atrypa devoniana* (Webster). Martin Limestone. Upper Devonian Period. Payson (Gila Co.), Ariz."

FLORIDA—"The best collecting in Florida is following a dredge. Most anything can and does turn up, including the collector if he does not watch his step."—item dated Aug. 25, 1959, from Mrs. F. F. Bowman, 1791 Sylvan Dr., Clearwater, Fla.

In following the dredge in Gulfport (suburb of St. Petersburg, Pinellas Co.), Fla., Mrs. Bowman found some interesting fossils one of which was sent R&M—a 3x3 inch group of hollow, gray marine shells.

"*Balanus concavus*. Late Miocene-Middle Tertiary?"—on label.

ILLINOIS—"Perhaps you would explain in this column that the Mazon Creek, Ill., fossils of Pennsylvania plants are not easily collected these days due

to many areas being posted. Mazon Creek is a term for the many miles of coal strip mine dumps near Wilmington, Braidwood, and Coal City, Ill., and indicates an ancient stream bed as well. Collectors who come for these famous fossils should definitely have an experienced guide to make their short visits worth while. Write to me."—item dated Nov. 28, 1959, from Mrs. Ethel Doerr (professional collector), 17959 S. Oak Park Ave., Tinley Park, Ill.

INDIANA—"We are sending you a copy of Circular No. 6, 'Adventures with fossils.'

"If you feel this publication would be of interest to amateur collectors generally, we would appreciate your mentioning it in ROCKS AND MINERALS. We have sufficient stock of this circular for wide distribution."—letter dated Nov. 12, 1959, from R. Dee Rarick, Geologist, Indiana Department of Conservation, Geological Survey, Bloomington, Ind.

Adventures with fossils, by Robert H. Shaver, is an attractive, illustrated, 52 page beginners guide to fossils. Price 35 cents.

MISSISSIPPI—"Twice I have been to the Marquette Cement Co's limestone quarry just outside of Brandon (Rankin Co.), Miss. Altogether I have found 14 shark teeth (the largest being 1¼ inches long). I have also found other prehistoric fish teeth and fossil shells, mostly scallops (some of which I am enclosing)."—letter dated Nov. 7, 1959, from Miss Carol Schlegel, 4407 Forest Park Drive, Jackson, Miss.

Three nice scallop shells were received. They were 1" in diameter, dark gray, loose and very thin (thin like a dime).

MISSOURI—Mrs. Charles O. Jackson, 2471½ E. Broadway, Excelsior Springs Mo., sent in a small gray fossil coral.

"Found here in Missouri in Ray County, about 5 miles east of Excelsior Springs."—on label.

NEW JERSEY—"Please find under separate cover two specimens of fossil shells in a matrix of greensand marl. They were found in a stream bank next to the Garden State Parkway at Exit 100 near Neptune (Monmouth Co.), N. J.

"Perhaps you could use this item in your Fossil Department."—letter dated Nov. 29, 1959, from David Peacock, 214 New Jersey Ave., Point Pleasant, N. J.

The specimens received consist of ¾" dark brown brachiopods (fossil shells) imbedded in 2x3 inch dark bluish-green compact greensand marl.

NEW MEXICO—"Enclosed are two brachiopods which might be of interest to you. The large one is *Neospirifer dunbari* and the small one is *Composita subtilita*. These are Pennsylvania index fossils and they are quite abundant in the cliffs surrounding Jemez Springs (Sandoval Co.), New Mexico. One can also find crinoid stems, bryozoan and fusulines in these same cliffs.

"I like your fossil department and I hope that you continue to publish it."—letter dated Nov. 27, 1959, from Will N. Blair, 1127 Shirley N.E., Albuquerque, N. Mex.

Two loose, lustrous, dark gray fossils were received. Smaller was 1¼x1¼ inches in size, larger 1¾x1¾ inches. In the larger fossil were imbedded small flecks of red jasper.

NEW YORK—"I am primarily a mineral collector but recently I have become interested in fossils. I have several types in my collection but recently I found a type that I cannot recognize. A specimen is sent you for possible identification. This particular fossil was found in a dried up stream bed in Jenksville (Tioga Co.), 7 miles north of Owego, N. Y. Owego is 22 miles west of Binghamton,

N. Y. The area for several miles is mostly fossiliferous.

"I would be happy to trade my fossils for minerals, if any collector would be interested."—letter dated Oct. 8, 1959, from Craig Burton, Box 41 RD2, Berkshire, N. Y.

The specimen consisted of dark gray shale one side of which contained numerous small gray fossil corals.

OKLAHOMA—An interesting illustrated 12-page price list devoted entirely to fossils was recently issued by Geological Enterprises, Box 926, Ardmore, Okla. This, we believe, is the largest price list on fossils ever printed. Send for a copy today!

TENNESSEE—"Under separate cover I am sending you some fossil samples of which I found in a deep road cut at the top of a hill some four hundred feet high in north Tennessee on Route 41 out of Springfield, Tenn. They occur in weathered lime and clay. What are they?"—letter dated Dec. 9, 1959, from Jas. R. Davidson, 412 N. 7th St., Marshall, Ill.

The specimens received consisted of dark gray fossil corals—one was loose and 2½ inches long—others were imbedded in dark gray limestone. Dark gray crinoid stems were also received, some imbedded in the dark gray limestone while others were loose, rounded, disc-shaped (averaging ½ inch in diam.), with holes in their center—this type is called "Indian beads."

Springfield is in central Robertson County not far from the Kentucky border.

How Did I Ever Get Along Without It?

Editor, R&M:

With the next issue of R&M I will start my second year with R&M. You cannot imagine what a help it has been to me. Although I have been collecting rocks and minerals for about four years I have only subscribed to R&M for the last year. How did I ever get along without it?

James T. Fulton
829 N. 18th
Coeur d'Alene, Idaho



WOMEN'S CORNER OF R & M

Conducted by Winnie Bourne

c/o Rocks and Minerals

Box 29, Peekskill, N. Y.

NOT ON A COLLECTING TRIP BUT WE DID VERY WELL!

Dear Winnie:

I was going to address this letter to the Fossil Department of R&M but remembered your complaint about readers deserting you, so changed my mind and decided to address it to the Women's Corner.

We toured New York State and Canada for our vacation last year. The only quarry visited was the dolomite quarry at Penfield (Monroe Co.), near Rochester, N. Y., where the usual good specimens were collected.

One, Robert Eaton of Rochester, advertises fossil sets in R&M and as my 10-year old daughter has become interested in fossils we registered at a Rochester motel for the night and telephoned Mrs. Eaton who said we could visit them in the evening when her husband would be home.

We were received like old friends and had a marvellous time. They have a simply gorgeous collection of minerals as well as fossils and we left so laden with minerals that Mr. Eaton had to mail the fossils on to me, after we got home. We were touring in an Austin-Healy, a 4 (?) seater sports car that has the absolute minimum of luggage space.

If any reader wants really nice dolomite specimens I'm sure the Eatons would oblige—I didn't ask if they were for sale but I imagine Mr. Eaton could be persuaded to sell some.

As we were leaving I asked if there were any fossil collecting areas along our route but was told we'd have to go south, in the direction of Syracuse.

Well, we left, and started homeward on our planned route. We drove to Niagara Falls and on the Canadian side

we found the walls of the promenade were made of stone that was absolutely full of fossils. I had a hard time convincing my daughter that she simply couldn't just hack off a few chunks.

We went on down Route 17 and stopped at the town of Olean for the night, as we saw signs that said "Rock City Park" and decided to investigate. We checked into a motel and as I glanced down I saw that the driveway was literally paved with fossils. What I had assumed was the usual broken trap rock was a dark grey shaley rock in pieces up to 2 inches in size showing nice fossils and fossil imprints. Naturally we picked up a good assortment, with the owner's permission—he had no idea where the rock was from originally. (I think the motel was called the Hart's Heaven, Heart's Heaven, or some such name).

In the morning we drove a few miles and stopped for breakfast in the town of Ceres (Allegany Co.), N. Y. After breakfast in the town of Ceres we went behind the building to see some rabbits in a cage. A trench was being dug along the garden path and among the material excavated were some masses of brownish rock that were crammed with fossils. So another 10 pounds of rocks were stuffed into our poor overloaded car, but it proves that fossils can crop up almost anywhere.

The "Rock City Park" in southern Cattaraugus County, N. Y. (close to the Pennsylvania line), that I mentioned is a fascinating place. It's the largest deposit of quartz-conglomerate in the world. It's in the Pennsylvania oil field and there are pumping jacks all over the

CONTINUED ON PAGE 160

CURRENT EVENTS

of the
EASTERN FEDERATION OF MINERALOGICAL AND LAPIDARY SOCIETIES

PRESIDENT

Sam Brown
40 Northview Ave.
Upper Montclair, N. J.

TREASURER

Dr. George F. Size
Box 236
Murphy, N. C.

VICE-PRESIDENT

Mrs. James M. Dearborn
146 Lincoln St.
Newton Highlands 61, Mass.

EDITOR

Mrs. Elsie Kane White
3418 Flannery Lane
Baltimore 7, Md.

SECRETARY

Roy E. Clark
Box 607
Newport News, Va.

BUFFALO EXHIBITION—MARCH, 1960

The Annual Geological Section Exhibit will be held in the Geological Department of the Buffalo Museum of Natural Sciences, Buffalo, N. Y., open to the public during the month of March, 1960. It will feature mineral and fossil specimens from individual members' collections. Also featured in this exhibition will be the prize winners from the Minerals of the Niagara Frontier Competition, held each year, on specimens collected within a 75 mile radius of Buffalo. First, second and third prize ribbons are offered in five categories, including Carbonates, Sulfides, Sulfates, Halides and Miscellaneous.

Don't miss this display if you are in the area.

Maryland Exhibition Plans Completed

Plans for the Gem, Mineral, Fossil and Jewelry Show, of the Gem Cutters Guild of Baltimore, are now complete. It will be held in the Auditorium of the Roosevelt Park Recreation Centre, on 36th Street at Falls Road (Route 25), and will be open free of charge from 2 to 10 P. M. on Saturday, April 30, 1960. Edward A. Geisler, 301 Charter Oak Avenue, Baltimore 12, Md., is General Show Chairman. William M. Crosby is President. A cordial welcome awaits all who wish to attend.

New Jersey Show Plans in Final Stage

Plans are now nearing final stages for the New Jersey Mineral and Gem Show of the five New Jersey federation societies. Latest announcement of the many special exhibits to be featured is a display of agatized coral, to be sent by the Miami Gem and Mineral Society of Flo-

rida. There will be over one million dollars in gems on display. See page 43, JAN. - FEB. 1960 ROCKS AND MINERALS. Competition is limited to the five New Jersey societies on club displays. Movies, lectures, door prizes, demonstrations of lapidary work, and a swapping table are in the works.

This show is being held at the Irvington House, 925 Springfield Avenue, Irvington, N. J., on May 7 and 8, 1960, open from 10 A. M. to 10 P. M. on Saturday and from 1 to 6 P. M. on Sunday. Mrs. Naomi McGregor, Horseneck Point, Oceanport, N. J., will supply a list of hotel and motel accommodations, and suggests reservations be made now. Mr. R. W. Burnham, 524 Highland Avenue, Upper Montclair, N. J., is general chairman.

Rockhound Roundup in Maine July 23 & 24, 1960

The Fourth Annual Rockhound Roundup of the Pine Tree Gem and Mineral Association, of Maine, will be held at the Swift River Valley District School, in Roxbury Village, on Saturday and Sunday, July 23 and 24, 1960.

Field trips and gold panning will be offered again. Swapping space will be free, while dealers will be asked \$1 for a table. Donations of 25 cents will be asked from all over 16 who attend the show, with only 25 cents rental fee for gold pans owned by the club.

For further information on tenting and motel space, contact Mrs. Freda C. Thomas, Roxbury, Maine, or Mrs. Laura Dubois, 27 Granite Street, Mexico, Maine.

National Show Dates For 1961

The combined Eastern Federation and American Federation conventions for 1961 will be held in Miami, Florida, on August 10, 11, 12 and 13, 1961.

Host Society will be Gemcrafters of Miami, whose permanent address is Box 616, Allapattah Station, Miami 42, Florida.

The Everglades Hotel at 244 Biscayne Boulevard will be official headquarters and the show will be staged in Bayfront Park Municipal Auditorium, just across the street.

Any information may be obtained by addressing the Society at the address above. Henry B. Graves, Convention Coordinator for the American Federation and President of Gemcrafters of Miami, released the above announcement.

National Shows For 1960 and 1962

Joint conventions of the American Federation and the California Federation will be held in Eureka, California, on July 8, 9, 10, 1960. The Humboldt Gem and Mineral Society will be host.

The combined American Federation and Midwest Federation conventions will be held in Des Moines, Iowa, in 1962.

James W. Anderson's 85th Year

James W. Anderson, nationally known leader in the rockhound hobby, celebrated his 85th birthday on January 7, at his home at 3614 Ednor Road, Baltimore 18, Md., showered with cards and flowers from many he introduced to the hobby.

Founder of the Gem Cutters Guild of Baltimore, one of the three founding societies of the Eastern Federation, and instrumental in its founding, it all began when Jimmie Anderson gave a talk to an adult metalcrafts class at City College in Baltimore on lapidary work in 1949. Their interest brought forth an invitation to visit the basement workshop at his home, where he taught them the art of cutting stones. There was where the Guild was formed, which will celebrate its tenth anniversary this spring.

Mr. Anderson knows the joy of sharing in this hobby and has taught hun-

dreds of rockhounds how to cut and polish gemstones. He has lectured to many club groups, given lessons to boy-scout and girl-scout groups, given demonstrations on television and appeared on radio shows. He was the originator of the well known Anderson hand-wrought sterling silverware with agate handles, about which many magazine and newspaper articles have been written. He has won many ribbons for his silver work, gemstones and polished slabs. On one occasion his silverware was a special feature of a California Federation show, where he travelled to lecture on this work. No Eastern Federation show has failed to have some of his work on display, and never has it failed to carry off prize winning ribbons.

He has been a gem collector for more than half of his 85 years. His hobby had its start in 1908 when he stumbled upon picture agates near Sidney, Montana, where as a Methodist and Congregational Minister, he had his first church, which he founded and help build. A minister



James W. Anderson, 3614 Ednor Rd., Baltimore 18, Md., with some handwrought silverware he designed and made with agate handles.

for 25 years, he later became private secretary to a United States Senator of Montana, then a Registrar with the Farm Credit Administration. It wasn't until 1933 that he learned the art of grinding and polishing by enrolling in a lapidary course at a Spokane, Washington, evening school, where for a number of years he was head of a bank covering four states with headquarters in Spokane, for he had made up his mind that he was going to have a hobby when he retired. In 1945 he moved east and has since devoted full time to this hobby.

Some folks might slow up a bit around this time. Soldiers might fade away; but this true rockhound keeps right on cutting and polishing, spreading joy and encouragement to others. Hindered by a stroke four years ago, and a heart attack during 1959, which hospitalized him for four weeks, and cut down his gemstone making for five months, Jimmie Anderson still found time to cut and polish stones and make 1,100 pieces of jewelry, including bracelets, rings, pendants and letter openers, which he distributed among the crippled children of Maryland, with about 400 pieces reserved and sent as gifts to the children of the town of Sidney, Montana, where 52 years ago he served his first pastorate.

A recent article carried in a Sidney newspaper states the first pastor at Peoples Congregational Church, the Rev. James W. Anderson, was a man particularly adapted to the early west, who liked to hunt and fish and who enjoyed the great outdoors. He came in 1909 and helped build the local church. Rev. Anderson was always interested in rocks, stones, agates and petrified woods. He was constantly picking up pretty stones and agates. Now he lives in Baltimore, and has a shop where he grinds and polishes those stones which he gathered down through the years, and makes them into little articles like letter openers, trimmed with agate, agate pins, bracelets and rings. He has never quite forgotten this, his first pastorate, and so he sent to Mrs. J. S. Beagle this year about 400 of those articles to be given to the children of the community. Mrs. Beagle placed them

in the hands of Mrs. Henry Turner, head of the Women's Auxiliary of the Junior Chamber of Commerce, who was very much pleased to place them on their Christmas tree.

Always at his side, too, sharing his joys, is the charming and well-loved Frances Anderson, his wife.

He has opened up new worlds of joy to hundreds, and as this editor writes these words, she recalls the first stone she cut nearly 10 years ago with Jimmie Anderson guiding her hands.

And what is Jimmie Anderson doing now? He is preparing an exhibit for the coming exhibition of the Gem Cutters Guild for their April show, in addition to working away on more pins, bracelets, pendants and letter openers, for distribution to the underprivileged next Christmas.

WHAT GOES WITH OUR CLUBS

The Mineralogical Society of Pennsylvania

planned its Seventh Annual Kodachrome Show for Sunday, January 10, in the Auditorium of the Reading Museum and Art Gallery in Reading. George A. Butler, President, reporting on the December field trip to the Wagner Free Institute of Science, in Philadelphia, says about 119 members and guests were present to hear Professor Erling Dorf, of Princeton University, lecture on Paricutin, The Volcano That Grew in a Cornfield, in Mexico. It was a spectacular report on a geologic event that man has rarely gotten a chance to participate in. Although the report itself would have been most interesting, Professor Dorf's understanding of the subject and his ability to put complex geologic descriptions into relatively simple language, made it all the more interesting and understandable to the many non-geologists in the group. The Wagner Museum proved that it is still a popular place for students of the Earth Sciences with many fine specimens from all fields of the Natural Sciences. Fine paleontological and mineral specimens were seen and will be remembered for a long time.

The Paleontology Group of the society and the Mengel Natural History Society met for a November field trip at the famous fossil outcrop at Deer Lake, Pine-dale, Pa., reports Leonard E. Gerhart. Many interesting specimens of Brachiopods, Pelecypods, Crinoids and other sea life of the Middle Devonian period were collected, with Will Beveridge finding a complete *Orthonota* (Pelecypod). Later in the afternoon they proceeded to the coal strippings north of St. Clair, Schuylkill County. Many fossil ferns were found including *Neuropteris*, *Pecopteris*, and *Alethopteris*. Loron Leonard collected *Calamites* and *Sphenophyllum* while Carolyn Gerhart found a fine specimen of *Sigillaria*.

The Gem and Mineral Society of the Virginia Peninsula celebrated its annual meeting and installation of officers with a banquet on January 12 at Frederico's Restaurant in Hampton. Dr. D. V. Dietrich, professor of gemology and mineralogy at the Virginia Polytechnic Institute, was the speaker. Officers installed are Roy E. Clark, president; Esther O'Brien, first vice president; Lt. Col. David W. Dick, second vice president; Mrs. J. Howard Allison, treasurer; Mrs. Leah Manack, secretary; Mrs. Margaret Israel, historian, and J. Howard Allison, parliamentarian, outgoing president. The Pebble Pups, junior group, affiliated with this society, held their annual banquet at the same time.

The Rockland County Mineral and Gem Society, of New York, held its annual dinner and installation of officers in December. Holiday greetings in poem form from Mrs. Helen M. Rice, president of the American Federation of Mineralogical Societies, of which the Eastern Federation is a regional part, was read and appreciated. Frank A. Sanders, of Upper Nyack, is the new president. F. William Miller of New City, became vice president; Mrs. Olga Simon of Nyack, recording secretary; Mrs. Marguerite R. Collyer, of West Nyack, continues as corresponding secretary; Mrs. Agnes Pugsley of New City, treasurer; with John Weitman, Gilbert Pugsley and Edward Howard, out-going president, directors.

An exhibition in a window of the Craft Students League, 840 Eighth Avenue, at 51st Street, in New York City, shows gem stones of the New York metropolitan area. The display was furnished by Martin Walter and Walter Stone of *The Lapidary and Gem Society of New York*. On display are rough and cut rose quartz, serpentine, agate, sunstone, cherts, jaspers, carnelians, smoky quartz, and many others. The rarest items on display are a cabochon of willemite from Franklin, N. J., and a faceted prehnite from Haledon, N. J. The most dazzling is some faceted rose quartz from Bedford, N. Y. The Craft Student League conducts courses in gem cutting, both cabochon and faceting.

The Geological Section, Buffalo Museum of Natural Sciences of New York, had William Kilgour speak on January 8, his subject being Stratigraphy and Fossils of the Niagara Escarpment, introducing the former life of the Silurian period in western New York. It was illustrated with colored slides of specimens Mr. Kilgour has collected during his stratigraphic paleontology field work. Door prize for this month was a muscovite mica specimen enclosing iron dendrites from Mitchell County, N. C. Two interesting economic films were shown in December, one *White Magic*, a National Gypsum Company presentation, and *Streamlined Steel* from the Bethlehem Steel Company. This program was arranged by Geological Section Vice President Thaddeus Czerniejewski, taking the place of a previously announced speaker who was unable to appear.

The Annual Trade and Sale was arranged for the February meeting and the annual competition for the best Minerals of the Niagara Frontier, prize winners to be featured in the March display at the Museum.

The Fulton County Mineral Club, of New York, which meets twice monthly and has as many field trips a month, reports programs for the winter months will include bragging nights, swapping nights, lectures and movies. A booklet on the club's three year history was being prepared in honor of its third anniversary. It will contain the officers, charter

members, all members and dates of year joining; special activities, programs and field trips, and was expected to be ready for distribution in January. The last field trip reported was to Canaan, Conn., for tremolite. Previously scheduled trips were held taking in Franklin, N. J., for Franklin minerals; the Herkimer diamond area in New York state; Chester, Mass., for margarite, a pink lithium mica; and Chittenango Falls for pink and white selenite, travertine and blue celestite. The Christmas holiday meeting was held on December 7, with the voluntary, unsolicited and Christmas-spirited committee, Bea Siarkowski (decorations), Reta Palmer (fancy cookies), and Margaret Hastings (corsages for the women members), making the 22 members who attended happy. The mineral grab bag was enjoyed by all.

The Monmouth Mineral and Gem Club, of New Jersey, celebrated its fifth anniversary in December, with a Christmas dinner party. Gift wrapped minerals were exchanged. The club, which meets the second Thursday of the month, has moved to a new meeting place, the Youth Centre, Fiske Street, Fair Haven, N. J. Officers for 1960 include George Dunn, of Long Branch, as president; William Meisenbacher, vice president; Robert White, second vice president; Mrs. Naomi McGregor, of Oceanport, secretary, and Thomas Wilderspin, treasurer.

The North Jersey Mineralogical Society held its 151st meeting at the Paterson, New Jersey, Public Library on January 14. After a library period, display setup and social period from 7 to 8 P. M., it installed the newly elected officers. John S. Albanese, of Union, N. J., was the speaker on this occasion, his topic being, Identification of Franklin, N. J. Minerals.

The Newark Mineralogical Society, of New Jersey, announces officers for 1960: Richard W. Burnham, president; Clifford C. Anthes, vice president; William H. Clinton, secretary, and Edward R. DeRoo, treasurer. Clarence L. Boyd was elected to the Board of Directors. In December, Oskar P. Krautheim, a member, gave an interesting and informative talk on Asbestos at the Newark Museum. He il-

lustrated it with specimens, photographs and maps of the area in Canada and the U. S. where this mineral is found. The U. S. Bureau of Mines film on Asbestos, the Miracle Mineral, further discussed this mineral and its uses. This society joined with the *North Jersey Mineralogical Society* and the *Newark Lapidary Society* in a Christmas party held at the Brownstone House in Paterson.

In January, Wilford R. Welsh, also a member of this society, and an instructor in Science at the Ridgewood, N. J. Schools, presented a clear and concise description with many fine specimens of the formation of Igneous Rocks. To further illustrate this topic, the film, Earthquakes and Volcanoes from the N. J. State Museum, and a sound and color film of the 1959 eruption of the Kilauea Volcano in Hawaii were shown.

The Keene Mineral Club, of New Hampshire, held its December meeting in the New Vocational Building of the Keene Teachers College, with Dean Carle speaking on Early Iron of this Region. Guests were invited from Manchester and Westminster. In January it met at the Blake House of the college, with a program on Fluorescent Minerals.

The Antrim Area Mineral Club, of New Hampshire, held its annual meeting on January 2, electing Louis M. Bowes, of Greenfield, N. H., president; James B. Moore, of Antrim, became vice president; Mrs. Dorothy M. Moore, P.O. Box 285, Antrim, secretary, and Mrs. Marie Rising of East Andover, treasurer. A program on Specific Gravity was presented by J. B. Moore, who also demonstrated the practical applications of this test. Another facet of the program was the presentation of a short article on concretions. Various types of concretions were on display. For January 30th, a meeting on Fluorescence was planned, with all members having fluorescent minerals setting up an exhibit. Various other clubs in the nearby regions were invited to this meeting. Refreshments were also to be served.

This Antrim club also planned representation at the New England Resources Council meeting in Concord on January 19, at which time speakers were to tell

of work done by the State in the field of Mineral Reconnaissance and Geological Studies.

The Boston Mineral Club, at its annual meeting, held in Boston in December, elected Harry Hohman, of Newton Highlands, president; John Washeba, of Medford, vice president; Chester Teichmann, treasurer; Mrs. John Moyer, recording secretary, and Mrs. Alexander Nadolny, corresponding secretary. Dr. Cornelius S. Hurlbut, Jr. and W. Everett Berry, out-going president, are directors. Annual reports were heard, followed by a mineral gift exchange. In January, Dr. Don Leet, professor of geology at Harvard, who also has charge of the Seismograph Station, spoke on Blasting Minerals out of the Earth. He told some of the causes of great catastrophies such as earthquakes, volcanoes, hurricanes, and tidal waves. The talk was illustrated by a 27 minute film of sound, fury and commotion called Blasting Vibrations: Cause and Effect. He also had on exhibition a specimen from the first Atomic Blast in New Mexico. The meeting, held in the Harvard Geological Lecture Room, was preceded by a dinner at the Coach Grille in Cambridge.

The Gem Cutters Guild, of Baltimore Md., enjoyed two sound films at their December meeting, through the courtesy of the Norton Company, of 3 New Bond St., Worcester 6, Mass., entitled Grits That Grind and The Diamond Wheel—Its Use and Care. Election of officers and its annual New Year's Eve party was held in January, after which refreshments were served cabaret style. William M. Crosby was elected president, with Frank Hansen, vice president; Henry C. Clidi, Jr., treasurer. Mrs. William Herrmann became recording secretary and Miss Dorothy T. Rice, corresponding secretary.

The Pine Tree Gem and Mineral Association, of Maine, elected Vincent Perry, of Mexico, Me., president for 1960. Elsie Moore of Frye became vice president; Laura Dubois of Mexico, recording secretary and publicity chairman; and Freda Thomas of Roxbury, corresponding secretary and treasurer. Dean Macrellis of

Byron is program chairman and Michael Dubois of Mexico, club historian. The Year Book committee consists of Gerald and Lula Turner, Laura Dubois, Carol Pevelite, Elsie Moore, Edith Trebilcock and Freda Thomas.

Philo Hodsdon, of Frye, is general chairman of the annual Rockhound Roundup. Assisting him will be Laura Dubois on publicity; Elsie Moore for overnight accommodations; George Dubois to contact caterer and Freda Thomas for special exhibits. Mrs. Vincent Perry has charge of an auction and the Clifford Trebilcocks of Topsham will handle field trip plans.

The Louisville Craftsman's Guild, of Kentucky, reports some of the honors received by its members during 1959. Mrs. Lawrence Minish, Jr. had two experimental designs in enamel accepted by the National Museum of Contemporary Crafts, of New York City. Russell Boucher won third place with a jewelry piece in the Canadian National Exposition, in Toronto. At the Kentucky State Fair, in Louisville, Charles Farmer won first place in metal smithing, with Gladys Spain second and Daniel Peterson, third. Russell Boucher won first prize for hand-made jewelry, second going to Jane Samples and third to Lucille Morris. Frances Woodson won first place for enamel on metal, second going to Mrs. Raymond Prueitt. Ruth McKim won first prize for ceramics, Kae Kelly, second, and Gladys Spain, third. Mrs. M. Brinson won a first prize for creative weaving, and Lucille Morris a blue ribbon for creative embroidery, with third ribbon to Nelle Peterson.

The Georgia Mineral Society, Inc., of Atlanta, announce a permanent address for the society, which is P.O. Box 7052, Atlanta 9, Ga. Current officers are F. E. Gleason, president; Miss Janie F. Morris, secretary; Miss Erna L. Mason, corresponding secretary; S. P. Cronheim, treasurer. For its regular meeting on January 4, they expected either Wayne Wilson or Dr. Vernon Hurst, or both, to relate experiences of recent trip to the emerald mines in South America. The Gem Club

meeting for January 18 had Mrs. Gladys Babson Hannaford of New York, scheduled to speak on diamonds, her lecture to be illustrated with "blue ground" rough and polished diamonds, diamond replicas, and a film showing diamond mining in Africa. Field trip on January 16 included two locations, one to the farm of Jim Watson to hunt pseudomorphs of limonite after well-crystallized pyrite with some possibly being dodecahedral. The other location near Tucker was expected to yield quartz crystals.

Gemcrafters of Miami, Fla., also announce a permanent address, which is P.O. Box 616, Allapattah Station, Miami 42, Fla. Newly elected officers are Henry B. Graves, president; Mrs. Helen Biglin, vice president; Albert F. Plaag, treasurer, and Mrs. Margaret S. Harley, secretary. It meets the first Tuesday of each month at 8 P. M., and location may be obtained by visitors by contacting the secretary.

The Miami Mineral and Gem Society, of Florida, report a recent Chinese Auction quite a success, and expect to have more of them. Here is the way it worked. An article is put up for auction. Someone bids on it. Let's say he bids \$1.00 and pays the dollar. The next bidder pays only the difference between the dollar and his bid, for example, he bids \$1.10 and pays only 10 cents. Someone bids \$1.35 and pays only the difference between \$1.35 and the \$1.10, which is 25 cents. And so it goes until a time signal is sounded. The last bid at the bell wins, and for what could be as little as one cent. The Arlington Gem and Mineral Club asked this society to send it a local rock 4"x4"x1/4" to be carved in the shape of Florida, to be put on display at the Texas Federation Show in May, 1960, and this they voted to do.

The Gem and Lapidary Society of Washington, D. C. viewed Kodachrome slides of trips taken by two members, Will Haliday and Frank Palik, in December. Mrs. Betty Campbell, also a member, and well known for faceting work in gemstones, was the January speaker, her subject being the A.B.C. and

F. of Faceting, covering selection of the stone, preforming, doping, grinding, polishing and suggestions in equipment, cost and care.

The Mineralogical Society of the District of Columbia reports for December that with the almost proprietary interest many of them take in the U.S. National Museum and because of the pleasant, informal manner of its speaker, Paul E. Desautels, hardly a cough was heard as he told of how the famous collections in the Gem and Mineral Hall were acquired and are cared for and how the collection as a whole, continues to expand. Mr. Desautels is Associate Curator of the Division of Mineralogy and Petrography of the Smithsonian Institution. Unraveling Some Mineralogical Mysteries by a professional mineralogist was scheduled for January, with Dr. Frederick H. Pough slated to be guest speaker at its annual banquet, his subject being about famous European mineral localities.

The Norfolk Gem and Mineral Association, of Virginia, recently welcomed into the Federation, was organized last July, and has grown from 20 to approximately 60 interested members. It reports that enthusiasm is running very high as a result of the interesting meetings, which have included a talk and exhibit on diamonds, a discussion of the cutting and polishing of opals, films and lectures on the Antarctica and films on antique jewelry; plus two field trips of approximately 150 miles each, to collect a variety of material and amazonite at Amelia, and rhodonite near Fork Union. It meets the first Friday evening of each month. H. P. Gavan is president; Warren Redford, secretary, and Mrs. Aileen S. Morris, Public Relations chairman, of 1355 S. Braden Crescent, Norfolk 2, Va.

(If yours is a member society of the Eastern Federation and no news of its activities appears, it is because this editor has received none from you. All federation club news should be sent direct to Current Events Editor, Mrs. Elsie Kane White, 3418 Flannery Lane, Baltimore 7, Md.)

EASTERN FEDERATION HISTORY

(Continued from Jan.-Feb. Issue)

Florence C. Hight, Historian

The Fourth Convention of the Eastern Federation was held at the Biscayne Terrace Hotel and the Miami Municipal Auditorium in Miami, Fla., October 12, 13, 14 and 15, 1954. Amid picturesque palms, water ways and palatial homes, it furnished a complete change of scene to the northern members. While the Federation member attendance was not large, 15 of the 22 affiliates were represented at the annual business meeting.

The Boston Mineral Society as the 22nd, was voted in at that time.

Seventeen dealers exhibited their wares, coming from Alaska, Arizona, Colorado, New York, New Jersey, Georgia and Florida.

This convention differed from those held previously in that it placed the emphasis on the handicraft possibilities obtained from mineral collecting, and was also, aimed to educate the public to a fascinating hobby or possible profitable pastime.

An area of 2500 square feet was given over to working demonstrations carried on by members of the Miami Mineral and Gem Society, host to the Federation. This area was divided into six sub-areas of 250 square feet each which demonstrated faceting, cabochon making, silver craft, slabbing and sawing, general lapidary work, and one area featured typical individual mineral collections.

The jewelry making booth was operated under the auspices of the Linsey Hopkins Vocational School.

Publicity given by the Press (more than 100 column inches of pictures and stories), two 15 minute discussions of mineralogy and lapidary work between the Commentator and Henry B. Graves, the convention chairman; the 18 foot mineralogical display window in the heart of the downtown area, contributed by the Florida Power and Light Company—all these contributed to the general public's desire to "see for themselves."

It was estimated that between 35 and 50 thousand persons attended this rather specialized show. There was no charge for admission. Many of the show visitors took advantage of the free instruction at most of the booths and many of them carried away completed gems, jewelry paper weights, etc.

Featured at the show was the Atomic Energy Display of Uranium minerals, the Smithsonian display of Meteorites, the agate handled

table silver and large polished slabs of Mr. Anderson of Baltimore Guild, and the beautiful Ingraham tourmalines.

The golden annual trophy for the outstanding Society display was won by the Newark Mineralogical Society, of Newark, N. J.

Albert S. White of New Jersey received the cup for the best individual display and Mrs. Betty Graham of Miami, the cup for the best display of faceted gems.

Those who attended the field trip near Uleta, about 10 miles from Miami, on Wednesday, October 13th, were happily surprised. They gathered yellow calcite crystals on a matrix of what appeared to be a metamorphosed coral, and the refuse from the digging of several large canals contained considerable amounts of calcite of a good quality for collectors. The whole mass, including the calcite crystals is highly fluorescent and phosphorescent under all wave lengths. W. H. Hayes of New Jersey says among the most interesting forms found is that of small, smooth clams, which are completely calcified and are light yellow and translucent. Not many of these were found.

J. Lewis Renton, of Portland, Oregon, president of the American Federation, attended the convention and was the principal speaker at the Federation luncheon.

Plaques were presented to past President William B. Aitken and to past President B. J. Chromy.

Slides were donated by President B. J. Chromy and an appropriation of \$200 was voted to purchase additional slides. Plans are being completed for a "Program Aid" Committee to assist smaller or more isolated societies by furnishing tape recordings on mineralogical subjects or programs with slides and text to be read.

The officers for 1955 were listed at the beginning of this Fourth Convention report. After a look at the beach they regretfully headed homeward.

(To be continued)

**BUY and USE
A GOOD
MINERAL BOOK**

Club and Society Notes

Attention Secretaries—Please submit neat copies. Give dates and places of meetings. Check names for correct spelling.

EAST

Connecticut Valley Mineral Club

Following are notes relative to recent activities of the Connecticut Valley Mineral Club, submitted as an independent club:

A field trip was held Sunday, September 13, 1959 to the G. E. Smith and Chandler Mills Mines, Newport, N. H. Members collected lazulite, a few nice specimens of brazilianite, staurolite, and small crystals of triphylite.

On October 25 we visited chialstolite locations in Sterling, Mass. and collected wernerite crystals at the Bolton, Mass. Limestone quarry.

Our meeting October 7 was devoted to the display and discussion of various specimens collected by members during the summer, and a report of our field trips by our Field Trip Chairman, Mr. T. Grant Whidden.

At the meeting of November 4 Mr. & Mrs. Lawrence Schoppee reported on their Quebec Vacation, well illustrated with excellent color slides, maps and specimens, and Larry's interesting description of visits to the chrome garnet locality at Orford, the columbium mine at Oka, magnesium mines and a quartz mine near Lachute, as well as a field trip with members of Ottawa Mineral Club north of Hull.

December 2nd Dr. Brian H. Mason, Curator of Physical Geology and Mineralogy at the American Museum of Natural History of New York City presented a vivid description of the famous mineral localities of Australia.

Kenneth H. Holt, Sec'y
82 Larchmont St.
Springfield, Mass.

4th Annual Rock Hound Round-Up

The 4th Annual Rock Hound Round-up of the Pine Tree Gem and Mineral Club will be held at Swift River Valley District School Saturday & Sunday, July 23rd & 24th, 1960.

Field trips and Gold Panning will be offered again, with only 25¢ rental fee for Gold Pans owned by the Club. Swapping space will be free while dealers will be asked \$1.00 for a table. Donations of 25¢ will be asked from all over 16, who attend the show.

For further information on tenting or motel space, contact Freda Thomas, Roxbury, Maine or Laura Dubois, 27 Granite Street, Mexico, Maine.

HEART OF CONNECTICUT GEM AND MINERAL SHOW June 25 and 26, 1960

On June 25th and 26th, 1960, Saturday and Sunday, the Middlesex County Mineral Club, Inc., will host the largest Gem and Mineral Show Connecticut has ever had. It will be held in the new American Legion Building in Moodus, Connecticut, directly off Route 151.

The show will be the first of what will be an annual event. There will be local as well as out-of-state exhibits on display. We plan to have two field trips to at least one brand-new gem beryl locality. These will be held while the show is in progress, as they are nearby areas.

Other features of the show will include crystal growth in progress, demonstrated and lectured by one of our local crystallography experts, a swap room where collectors can compare and exchange material, and a large push-button display map of local collecting areas and material to be found there.

This will be the largest collection of Connecticut minerals ever assembled under one roof. Dealers are being solicited, and there will be a large selection of local and out-of-state material to choose from.

Ted Hilton's famous summer resort has promised to extend special rates on food and lodging for those attending the show. The show will be in progress from 10 A.M. to 10 P.M. for both days.

A snack bar will be maintained on the premises. "Rockhounds," collectors and dealers are cordially invited to attend. This will be a non-competitive event this year, but there will be door prizes. There will be ample parking space.

Anyone desiring further information, please contact Mrs. Robert P. Gallant, Box 32, Moodus, Connecticut.

Stamford Museum Mineralogical Society

At our meeting on Nov. 10, 1959, we had the great pleasure of seeing micromounts of Mr. Neal Yedlin. Mr. Yedlin showed us about 150 slides that he had taken in color through the microscope. These pictures he threw on the screen by his high-powered projector. They were wonderfully beautiful. Such a range of color as we saw would satisfy any appetite for that which is lovely!

Some of the specimens that were not most appealing because of color were, none the less, interesting because of the shapes and perfection of crystals.

Mr. Yedlin said it was fun to show his pictures. We know that it was. When one has something as fine as his collection there is soul satisfaction in sharing it.

We wish many others of the mineral fraternity the joy of seeing Mr. Yedlin's display.

Ralph H. Mix, Publicity Chairman
102 Knickerbocker Ave.
Springdale, Conn.

New Haven Mineral Club

The annual meeting of the New Haven Mineral Club was held on Monday, October 12, 1959 at the Peabody Museum, New Haven Conn. At this time there was an election of officers with the following elected: Charles W. Wight, President; Charles H. Weber, Jr., Vice-President; Marcelle Weber, Secretary; Russell Jones, Treasurer.

Pearson Kipp retired from the presidency this year after serving ably in this capacity for several years.

At this meeting a prize was awarded to David Foster for the best specimen of this year on an unscheduled field trip. The specimen was fluorite with calcite and stibite from the Thomaston, Conn., Dam Project. The prize for the best specimen collected on a scheduled field trip went to Jeffrey Perkins for a specimen of scheelite from Trumbull, Conn.

Our last outing of the year was held on Sunday, October 18. The members had a choice of going to Case Quarry, Portland, Conn., where specimens of beryl, columbite, titanite and other minerals can be obtained, or to Fonda, New York to collect doubly-terminated quartz crystals known as Herkimer Diamonds.

Mrs. Lewis K. Moore
19 Stony Point Rd.
Clinton, Conn.

Westchester Mineral & Gem Society, Inc. Westchester County, N. Y.

The WESTCHESTER MINERAL & GEM SOCIETY, at its year-end meeting at the County Center, White Plains, N. Y., elected a new slate of officers for the coming year. The gavel was turned over to Seymour Schweitzer, newly elected President, by Ernest Weidhaas the retiring President, and well known owner of one of America's finest private mineral collections.

Other officers elected were George Jellenik, Jr., first vice president; Frank Chambers, second vice president; Olive Delaney, secretary-treasurer and Kathleen Ebbinghaas, corresponding secretary.

The membership also voted to have the Society join the Eastern Federation.

Among the activities during 1959 was a field trip to Moodus, Conn., for Beryl. The interesting phase of this outing was the blasting done for the members at the start of their day and again during the day itself.

Also, among guest speakers at the Society's monthly meetings were Peter Zodac, Ronald Januzzi, Dr. Frederick Stenbuck, Curt Segeler and David Seaman.

The Society held its first meeting of the year with its newly elected officers at the County Center in White Plains, Thursday evening, Jan. 21st.

To celebrate this occasion rare mineral specimens were distributed to the members through the good offices of Mr. Ernest Weidhaas past president of the Society. A fine series of color slides of gems and minerals were also shown many of them from the celebrated collections of the late Dr. George F. Kunz and James G. Manchester.

The Westchester Mineral & Gem Society is now enjoying its 5th year at the County Center and meets there on the third Thursday of each month at 8 p.m. Residents of Westchester County interested in prospecting for gems, minerals, jewelry making and gem cutting are welcome.

George Jellenik, Jr.
19 Barnum Rd.
Larchmont, N. Y.

Franklin - Ogdensburg Mineral Society

A new and very active mineral society has been formed: The Franklin-Ogdensburg Mineral Society, Box 146, Franklin, N. J., with interests centering naturally, on the Franklin minerals and mineralogy. Our activities supplement those of the FMA, with our active programs, including the following.

1. Establishment of a permanent museum of Franklin minerals at Franklin, N. J.
2. Facilitating the identification of Franklin minerals.
3. Cooperative scientific programs with universities and other organizations and individuals to further knowledge of Franklin minerals and mineralogy.
4. Dissemination of accurate information on the Franklin minerals and mineralogy.
5. Facilitating collecting of the Franklin minerals.

At this early stage we have 70 members. Membership is \$2.00. Officers are Richard Hauck, president; J. Kenneth Fisher, vice president; F. Hasbrouck, secretary-treasurer, and John Hendricks, Paul Chorney, Mrs. Ethyl Cook and Arthur Harr, executive committee.

The first meeting was held at the Legion Home in Franklin at 2:30 p.m., Saturday, November 14th. Mr. Robert Metsger, resident geologist of the N. J. Zinc Co., spoke on the origin of some of the zinc ores. Anyone interested is invited to attend our meetings.

John G. Hendricks
Box 146
Franklin, N. J.

Club wanted in Lake Placid, N. Y.

We are planning on starting a mineral club here and in the surrounding towns and feel sure we can get together quite a few folks. One of our requirements will be their subscription for R&M—of course every member will want it for sure. There are many people in this area who are interested in minerals but who do not go in for collecting. We would appreciate hearing from anyone who may want to join us or who may have information on starting a club.

Buel Abbey
424 Main St.
Lake Placid, N. Y.

SOUTH

Jacksonville Gem & Mineral Society

have recently formed the Jacksonville & Mineral Society which meets at 1951 Cassat Ave., Jacksonville, Fla., the first Thursday of each month at 8 p.m.

Mrs. Nellie W. Rowlands, Secy.
1951 Cassat Ave.
Jacksonville 10, Fla.

MIDWEST

Huron Valley Lapidary Guild

Interested persons in the Ann Arbor, Ypsilanti, Michigan area have recently formed the Huron Valley Lapidary Guild. All present members have been students of Stephen Chick, lapidary instructor in the Ann Arbor Adult Education Program. Organizational meetings were held in the spring and summer prior to formal club activities in the fall of 1959.

The purpose of the club is the improvement of lapidary skills in the art of cutting and polishing cabochon gem materials and the sharing of interests and information related to these skills. The club particularly stresses active participation in lapidary work by requiring each member to exhibit yearly several samples of his workmanship which are to be chosen from the various rock and mineral families. The club is primarily designed for those who have already acquired the basic lapidary skills and who desire to perfect their craftsmanship.

Since club membership is limited to a small number, additional groups similar in pattern and purpose will be organized under the club name to accommodate other interested persons. A second group is presently being formed.

The main program activity of the club is the presentation of stones polished by club members. Each month a particular stone is assigned, reported on, discussed and pieces purchased

at the meeting. The following month the polished stones are exhibited and discussed again. A resume of all information pertinent to the polishing of each stone is kept on file by the club librarian. So far rutiled quartz, Labradorite, Texas moss agate and azurite have been assigned topics.

For further information on the Huron Valley Lapidary Club contact the president, Mr. Herbert Cornish, 123 College Place, Ypsilanti, Michigan.
(by Jane Foulser)

Des Plaines Valley Geological Society Des Plaines, Illinois

The Des Plaines Valley Geological Society has inaugurated a new procedure in helping new members to "get acquainted" with lapidary work.

At each meeting new members are invited to attend the homes of members who have cutting equipment. At these meetings the new members are then given the opportunity to cut and polish a stone.

Mr. Harvey Wartenberg, club treasurer, had different groups to his home. He said they were thrilled to be able to cut and polish a stone and their enthusiasm for the hobby was increased immensely. Mrs. Viola Wendt, our liaison officer and a fine lapidarius, had a group in to learn the art of jewelry making. This also proved very successful.

We find that these little "get togethers" help make our club a stronger and more active group.

Dorothy Taylor, Publicity
6628 N. Octavia
Chicago 31, Illinois

Itasca Rock and Mineral Club

The Itasca Rock and Mineral Club of Itasca County, hold meetings the fourth Wednesday of each month at the Grand Rapids Library Rooms, Grand Rapids, Minnesota. At these meetings, discussion is held regarding rocks and minerals and a varied program of talks by outsiders well versed on the rockhound subject, slides and ways to learn more about this fascinating subject. In the summer months tours are taken to different places in the hope of finding interesting material. Anyone interested is invited to join or visit this club.

Mrs. Lawrence Shepard
Box 488
Bovey, Minn.

Black Hawk Gem & Mineral Society

Dr. A. F. Koch, of Waterloo, Iowa, has been elected president of newly-organized Black Hawk Gem and Mineral Society.

More than 75 Waterloo area residents attended the organizational meeting.

Members set the second Tuesday of each month, at 7:30 p.m. in the Washington Community Center, for regular meetings.

Miss Marvel Lesch
535 Vermont St.
Waterloo, Iowa

COLORADO

Colorado Springs Mineralogical Society Starts Its Twenty-Fourth Year

By **RAYMOND ZIEGLER**
Publicity Chairman
509 N. Spruce St.
Colorado Springs, Colo.

On November 24, 1936, twelve individuals highly interested in the various phases of mineralogy were invited to the home of Dr. E. L. Timmons for the purpose of organizing a mineralogical society. Mr. Willett R. Willis was elected president and the late Mr. Lazard Cahn was elected permanent honorary president. At the next meeting held in December at Colorado College, a constitution was adopted that automatically christened the new organization, "The Colorado Springs Mineralogical Society".

The society is a non-profit organization that strives to create interest, increase knowledge and encourage the collection of minerals. Interesting programs are held through the winter months. Professor Richard M. Pearl spoke of "New Mineral Frontiers" at the January meeting. In February Raymond F. Ziegler, past president, will exhibit a fine collection of Creede, Colorado, minerals and speak on "Creede and Its Minerals" illustrated with colored slides. Although no meetings are held during the summer months, field trips are enjoyed instead. Colorado and particular the Pikes Peak region is one of the finest collecting areas in the nation. Some of the finest topaz has come from near the top of Pikes Peak, zircons from St. Peter's Dome, golden barite from Fort Carson, celestite from the Garden of the Gods area, banded agate from the Black Canyon and our famed amazonstone from the Crystal Park vicinity. Among our fifty states Colorado ranks at the top in the abundance and the number of varieties of min-

erals to be found within its boundaries.

A new incentive this year is the annual awarding of a certificate of merit to the member for outstanding service for the good and welfare of the society. This year's award was proudly presented to Clarence G. Coil for his outstanding leadership as chairman of the Girl Scout Round-Up Mineral Program Committee. Through the efforts of Mr. Coil and his committee, 70,000 pieces of Colorado minerals were packaged and distributed so that each Girl Scout at the 1959 national encampment north of Colorado Springs, received a specimen of Pikes Peak granite (from the top), amazonstone, pyrite, molybdenite, gold ore, petrified wood and uranium ore.

In the large tent allotted for the mineral exhibit were hundreds of choice specimens. One of the cases displayed a mineral from each of the fifty states. There were uranium ores and Geiger counters with which to hear the "clicks". One end of the tent housed a working lapidary shop (cutting and polishing of stones) and the other end a dark room with fluorescent minerals that glowed in the dark. The universal interest in minerals was shown by the capacity attendance of the Girl Scouts who were from every state in the Union and several foreign countries.

The society is a member of the Rocky Mountain Federation of Mineralogical Societies and the American Federation of Mineralogical Societies.

A fine display of minerals, donated by the members, is permanently on exhibit at the Pioneers Museum. A dark room with fluorescent minerals is also maintained by the society.

Since its beginning twenty-three years ago, the Colorado Springs Mineralogical Society has steadily grown. Membership now totals over a hundred active members. Plans are being formulated to build their own club house and museum in the near future. At present the society meets the second Thursday of each month in the Playroom of the Alexander Film Co.



1960 Officers of the Colorado Springs Mineralogical Society

Max Fillmore, president (far right) shows an Oklahoma "Hour Glass" selenite to (from left to right) William J. Whitney, secretary; Dorothy W. Keithley, treasurer and John C. Hawthorne, vice-president.

WYOMING

Natrona County Rockhound Club

We wish to report the results of our recent election of officers of the Natrona County Rockhound Club.

Mr. William Guthrie was unanimously elected president, his fifth term. Mr. Guthrie is a charter member and has served two years as president of the State Association.

Mr. Jack Thomson was elected vice-president, Mrs. Florence Johnson as secretary and Mrs. Claude Drown as treasurer.

We are asking for the 1961 Federation Show. Our motto will be "All Roads Lead to Casper in '61".

Florence Johnson
1765 W. 15th St.
Casper, Wyo.

ARIZONA

Arizona Mineralogical Society

New Arizona Mineralogical Society officers for 1959-60 are: Moulton B. Smith, president; Susan N. Cummings, vice-president; Edna Barrett, secretary-treasurer; Floyd Getsinger, program; Alfred Johnson, field trips; and Mrs. Cy Hartman, historian.

To encourage the novice mineral exhibitor at the Arizona State Fair, a new class has been set up for past winners. If you have ever won two blue ribbons in any class at the Arizona State Fair Mineralogical Department, you may NOT enter in those same classes in OPEN competition, but you MAY enter as a member of the Blue Ribbon Group. Complete details are available from Mr. Flagg.

Agnes Holst, past president of the Maricopa Lapidary Society, gave a chalk talk at the "Wear Your Specimens" (especially if they're uncut or unpolished) meeting of the society on Nov. 20th. She described four ways a real amateur with a minimum of tools and jewels could create works of art: 1. A new discovery called Epoxy cement, available under several brand names, can be used in different ways to make a finished product. 2. Copper or silver wire can be bent to hold stones in place and add glamour. 3. Sheet silver or copper can be shaped easily with only a coping saw and steel wool. 4. Soft solder applied with an ordinary solder iron, may be used to hold stones in place and set them effectively. Wilma Cowell brought beautiful examples of jewelry she had created using the simplest methods, and everyone was inspired to try it!

Field trips have been taken to the onyx mine near Seven Springs, and to the Tonto Basin for selenite and epidote, both in Arizona.

The Phoenix Gem and Mineral Show will be held March 4, 5, and 6, 1960. The theme this year will be Treasures of the Aztecs.

William B. (Uncle Billy) Pitts, the oldest Honorary Member of the Arizona Mineralogical Society, died in Atlanta, Georgia recently. He was over 91 years old and visited our society every year for a very long time.

Mrs. J. N. Salvino, Corres. - Secy.
1447 E. San Juan
Phoenix, Ariz.

PACIFIC COAST

Slover Gem & Mineral Society

As publicity chairman and bulletin editor for the Slover Gem and Mineral Society, I would like to announce that we are planning our Third Annual Show, April 2 and 3, 1960, at the Lincoln School Cafetorium, 444 East Olive St., Colton, Calif. We are just 60 miles east of Los Angeles, between San Bernardino and Riverside.

Mrs. Aileen McKinney
1080 Rancho Ave.
Colton, Calif.

LAKESIDE GEM & MINERAL CLUB Kennewick, Washington

Traveling Rock Box for Exchange

Our Club has a Traveling Rock Box which we would like to exchange with a member club of the Eastern Federation.

The box is a 25 lb. quality assortment, mostly cutting material, from our favorite collecting areas in Idaho, Oregon and Washington. Upon request we will send the box, shipping charges "Collect". (Railway Express will run about \$7.00). The receiving club keeps the contents, disposing of it any way it wishes, then loads the box with good material and returns it to us "Collect".

Our way of handling the material we receive is to auction it off to our members. The proceeds go to pay shipping costs and anything over go into the Club treasury.

It is a little different approach to the problem of keeping member interest and our bank balance up where it belongs. Your help in passing the word to your readers will be appreciated.

Harry H. Wrangham
President, Lakeside Gem & Mineral Club
403 N. Underwood St.
Kennewick, Wash.

American Federation To California 1960

Plans for the National Gem show which will be held in conjunction with the California Federation Show at Eureka, California, July 8, 9, 10, 1960, include many things which will be of interest to those who attend. For many it will be a first trip to the land of the giant Redwoods and the coast of the Pacific Ocean.

Humboldt Gem and Mineral Society, host to the show, has arranged for the use of beautiful Redwood Acres fair grounds. Its specious buildings will make an excellent setting for exhibits, dealers, hobbies in action and all of the many features of the show. In addition more than 500 camping and trailer sites will be available on the grounds—and ample free parking for guests.

Eureka is situated on Humboldt Bay about 100 miles south of Oregon. It can be reached by Highway 101 from San Francisco on the south, and Portland on the north and by Highway 299 from Redding in the Sacramento valley.

The giant Sequoias, with many State Parks and camp sites, the many rivers and streams, the mountains only an hour's drive away, make Eureka headquarters for vacationers, sportsmen and tourists as well as for Rockhounds.

Humboldt County with its variety of strata is rich in minerals. The Rockhound will be particularly interested in the areas where much gold mining has been done by companies and amateurs, along the Trinity and Klamath Rivers. There is much of mining history and a trip to the picturesque old town of Weaverville, County seat of Trinity County, where its colorful old buildings with winding stairs from the street side, and its old Chinese Joss House are reminders of the early gold rush days. This part of California offers promising possibilities for future development of copper, iron, manganese and other metals.

There are many fossils available to the collector, which have been exposed by erosion of the soil or bared by the construction of railroads and highways. The beaches offer a special attraction in an abundance of driftwood. Collecting is good too, for agates, Jasper, jade and many other stones are found.

Field trips of unusual interest are being planned, for members of Humboldt Gem and Mineral Society are well acquainted with their area, and they extend a cordial invitation to visit this land of the Giants with its vast natural resources and excellent mild climate. Come and see for yourself! Eureka and Humboldt County welcomes the National Gem Show.

Mattie E. Ross, Pub. Chairman
Humboldt Gem & Mineral Soc.,
P. O. Box 336
Fortuna, Calif.

Committees named for the National Gem Show which will be held in conjunction with the California Federation Show, at Eureka, Humboldt County, California state that plans are well laid, and everything is being done to make this an example of true western hospitality. Rockhounds are urged to contact committee chairmen for details on any phase of the show. Camping and Trailering on the site of the Show will be attractive to many families at this time of year, and are urged to make reservations early. Following is a list of the committees, please feel free to write for the information you desire:

GENERAL CHAIRMAN:

P. G. Hollister

1919 Fourth Street, Eureka, California
SHOW COORDINATOR:

Jack Klein

327 So. First Street, Barstow, California
SECRETARY:

Isabell R. James

387 Loleta Drive, Loleta, California
TREASURER:

J. M. McCall

Box 38, Scotia, California

SPECIAL EXHIBITS:

Amelia G. Alward

392-10th Street, Fortuna, California
DEALERS:

Jack Trego

1808 Wood Street, Eureka, California
COMPETITIVE EXHIBITS:

Art Stegeman

725 Patrick Court, Arcata, California
BANQUET:

Abe Fraser

2540 G Street, Eureka, California
REGISTRATION-Camping

Glenn Nash

3314 Union Street, Eureka, California
REGISTRATION-General

Dale A. Laing

2905 North Street, Eureka, California
REGISTRATION-Advanced:

J. M. McCall

Box 38, Scotia, California
FIELD TRIP:

A. W. Porter

Pepperwood, California
PUBLICITY AND PROGRAM:

Mattie E. Ross

P. O. Box 336, Fortuna, California
PHYSICAL FACILITIES:

Jess P. Sheppard

1965 Fidle Hill Road, Arcata, California
ELECTRICAL:

Orval Grant

2560 Davis Way, Arcata, California
CLERKS AND JUDGES:

Olive Davis

P. O. Box 509, Eureka, California
RESERVATION-HOTEL AND MOTEL:

Eureka Chamber of Commerce

2112 Broadway, Eureka, California

Publications Recently Received

QUICK & LEIPER

Gemcraft (How to cut and polish gemstones)

By Leland Quick and Hugh Leiper, 181 pp., 177 figs. Published by Chilton Company, 56th and Chestnut Sts., Philadelphia, Pa. Price \$7.50.

For the hundreds of thousands of devotees now engaged in this relatively new craft, here are the newest and most comprehensive techniques and information based on the combined experience of two leading experts in the field.

Beginning with a description of the properties and physical characteristics of gems, including synthetics and imitations, the authors show the craftsman how to get started, the equipment needed, how to saw, grind, lap, sand, and polish. They cover the grinding and polishing of cabochons, the cutting and polishing of faceted stones, with a special helpful section on dopping, carving, and sculpturing gemstones, mosaic and intarsia, plus special polishing problems of gemstones.

Gemstone novelties are also included, such as book-ends, clocks, lamps, ashtrays, agate-handled silverware, dishes, and many others. One of the highlights of **GEMCRAFT** is the chapter on where and how to collect gemstones. Indispensable for the collector, this section is packed with interesting information. The chapter on special lapidary techniques and shortcuts is very valuable. The many clear, step-by-step photographs presenting every important process in gemcraft and the extensive bibliography and complete index make this the finest, most thorough book on the subject published.

Dana's Manual of Mineralogy

Revised by Cornelius S. Hurlbut, Jr.

Published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 609 pp., 634 fig., 1 color plate. Price, \$11.50.

For well over a century Dana's Manual of Mineralogy has been widely used by students, geologists, and amateur mineralogists. During this time the resulting changes in the science of mineralogy have been to make it more quantitative. The new material added in the Seventeenth Edition reflects these changes.

The major revision in the book is in the broad use of the crystal-chemical approach throughout. This serves as a basic and unifying force relating the properties of minerals through fundamental structural and chemical considerations.

The chapter on crystallography has been expanded to include a discussion of (1) the stereographic projection, (2) the thirty-two

crystal classes, (3) the calculation of axial ratios, and (4) X-ray crystallography. In the chapter on chemical mineralogy the section on crystal chemistry has been expanded, and in the chapter "Descriptive Mineralogy" mineral groups as well as individual species are considered in the light of their crystal chemistry.

LAPHAM AND GEYER

Mineral Collecting in Pennsylvania

By Davis M. Lapham and Alan R. Geyer, 74 pp., illustrated. Published by Department of Internal Affairs, Topographic and Geology Survey, Harrisburg, Pa. (Available from Division of Documents, 10th and Market Sts., Harrisburg, Pa. Price 25¢).

Several aspects of this new bulletin represents a departure from most publications which often do little more than list the minerals which have been found. After introductory sections on mineral collecting, the science of mineralogy and the use of topographic maps, each collecting locality is described alphabetically by county.

The new Bulletin G 33 is intended as a start toward bringing the mineralogy of Pennsylvania up to date. This report is not comprehensive but presents information on 28 of the state's most interesting localities. A brief summary of the geology, especially as it relates to the minerals of the deposit, is presented in non-technical language.

WILKERSON

Minerals of New Jersey

By Prof. Albert S. Wilkerson, 51 pp. Published by the Geological Society of New Jersey, State Museum, Trenton, N. J. Price \$1.50. A letter from Kemble Widmer, State Geologist, reads:

"Enclosed is a complimentary copy of Report No. 1, 'Minerals of New Jersey' published by The Geological Society of New Jersey.

"The Geological Society of New Jersey is a group of amateurs and professionals banded together to promote interest in geology, mineralogy and paleontology of New Jersey. The organization is sponsored by the State Geological Survey of the Department of Conservation and Economic Development, and the State Museum of the Department of Education.

"The bulletin was worked up over a two-year period in order to provide answers to many of the questions that the professionals have been asked and to summarize information which we believe has heretofore only been available from a variety of sources."

ALBANESE

Notes on the minerals of Franklin and Sterling Hill, New Jersey.

By John S. Albanese, mineral dealer and an authority on Franklin minerals.

Franklin, N. J., is one of the world's great mineral localities (the greatest in the Western Hemisphere) and its minerals have always been in world-wide demand.

Mr. Albanese has compiled notes and information on this famous locality into book form, issued quarterly in January, April, July and October.

Published by John S. Albanese, P.O. Box 221, Union, N. J. Price \$2.00 per year.

The publication brings to light, the history of the old mines, mention of old and new minerals, beside other numerous data on the famous localities of Franklin and Sterling Hill, N. J., which will be of genuine interest to collectors and students of mineralogy. Note the display ad in this issue of R&M for further details in regards to this fine publication by John S. Albanese, whose authoritative notes will be of interest to all and re-read from time to time for their data noted therein.

DENNEN

Principles of Mineralogy

By William H. Dennen, 421 pp., illustrated. Published by Ronald Press Company, 15 E. 26th St., New York 10, N. Y. Price \$7.50.

Logically organized, the book is divided into two sections. Part 1 consists of six chapters dealing with those phenomena of the solid state which are of direct and general concern in mineralogy, plus material on the physical properties and chemical testing of minerals. These chapters, requiring only a knowledge of elementary chemistry, provide the necessary conceptual background.

Part 2 is devoted to descriptions of individual mineral species or series, together with information applicable to appropriate mineral groups. The descriptions furnish a basis for the student's laboratory identification of specimen material. The book is thoroughly illustrated with line drawings by the author, and is supplied with annotated bibliographies and a mineral index.

JACOBS-RUSSELL-WILSON

Physics and Geology

By J. A. Jacobs, R.D. Russell, and J. Tuzo Wilson, 424 pp., illustrated. Published by McGraw-Hill Book Co., Inc., 330 West 42nd St., New York 36, N. Y. Price \$9.75

This book describes the nature, composition, and behavior of the earth by integrating available information from geophysics, geology, and geochemistry. The authors' purpose is twofold: to give students of geology an introduction to the physics of the earth and to give scientists in other fields some knowledge of geology and its relation to geophysics.

NORTHROP

Minerals of New Mexico

By Stuart A. Northrop, 665 pp., map in pocket (Mining districts of New Mexico). Published by University of New Mexico Press, Albuquerque, N. Mexico. Price \$10.00.

This 681-page book devotes 472 pages to descriptions and records of the place of occurrence of every mineral found in New Mexico, alphabetically arranged from Acmite to Zoisite, and cross referenced. It contains such interesting items as New Mexico Meteorites, listed under Iron; a study of the history, economics, and technology of Turquoise; and many entries for Fluorescent and Radioactive Minerals. "Highlights in the History of New Mexico Mineralogy and Mining," pages 5-80, is a fascinating survey from prehistoric times through Spanish, Mexican, and American utilization of minerals. In 1629, Salmeron wrote, "Before all things, there are mineral deposits, and there is no corner which has them not."

RILEY

Our Mineral Resources

By Charles M. Riley, 338 pp., 102 figs. Published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N.Y. Price \$6.95

This book . . . is unique in that it offers an elementary approach to a subject most often taught at a college, senior or graduate level. With a minimum use of scientific terminology, it presents a great amount of scientific theory and useful fact. The book summarizes the most modern knowledge about where and how our valuable mineral resources are formed by nature, and discusses some new deposits described only in the most recent literature. It also offers some non-geological background material, such as the technological uses of minerals, prospecting methods and world production, which provide the beginner with an appreciation of minerals and their importance to mankind. The book contains an extensive glossary, an up-to-date list of references, current statistics, and numerous illustrations.

NININGER

Out of the Sky

(An introduction to Meteoritics)

By H. H. Nininger, 336 pp., illustrated. Published by Dover Publications, Inc., 180 Varick St., New York 14, N. Y. Price \$1.85

Over 24,000,000 meteorites enter the earth's atmosphere each day. Of these, only one out of every 2,600,000 ever reaches the surface of our planet. The others, rushing into the atmosphere at 21 miles per second, are completely consumed by the enormous heat of friction generated by their motion through the air.

Dr. Nininger is director of the American Meteorite Museum and one of the world's leading experts on the subject.

GORDON'S Mineralogy of Pennsylvania

By Samuel G. Gordon, 255 pp., 110 figs. Published by the Academy of Natural Sciences, 19th and the Parkway, Philadelphia 3, Pa. Price \$3.50.

Reprinted because of popular demand, this book is available for the first time in many years. Its unique approach—covering not only what the minerals are, but where to find them—makes it indispensable to naturalists, students, geologists, and people interested in their surroundings.

DEALERS CATALOGS

Schortmann's Minerals, 6 McKinley Ave., Easthampton, Mass., have recently released "Selected Mineral Specimens, Catalog No. 11." This is a handsome, 56-page, illustrated price list featuring selected mineral specimens, collections, student study minerals, mineralogists, fluorescent minerals, radioactive minerals, prospector's picks, magnifiers, books, etc.

Ward's Natural Science Est., Inc., Box 1712, Rochester 3, N. Y., have issued a Special Progress Report, an illustrated, 30-page publication. The main feature of the report announces the occupancy of a new and large Geology Wing—a 60'x200' structure to house Ward's Geology Department which has grown to huge proportions and needed larger quarters.

PICKENS MINERAL POST CARD DEPARTMENT

Reo N. Pickens, Jr., 610 N. Martin, Waukegan, Ill., one of our good advertisers, is a photographer whose hobby is mineral collecting. For over a year we have been receiving from Mr. Pickens post cards of minerals in color which he himself had taken. These mineral post cards are so beautiful, and with new ones coming out every month, that we have decided they deserve a spot all their own in R&M and so Pickens Mineral Post Card Department is set aside for them.

Two new post cards recently arrived. One shows a beautiful dark green jade.

"Nephrite jade, Bull Canyon, Fremont Co., Wyoming. A calcium-magnesium-iron amphibole, with a hardness of 6½. The size is 7½"x9x6½" thick, weight is 29½ lbs."—caption on card.

The other card shows two gray fossils (one loose, the other in matrix).

"Cretaceous ammonites. Scenic, South Dakota. Baculite Ovatus in matrix, 8¼ inches in length. Platiceras Interalare, 7½ inches in Dia."—caption on card.

Wonder what Mr. Pickens will have next?

T. ORCHARD LISLE (Obituary Notice)

December 1, 1959, marked the passing of one of our oldest members of the New York Mineralogical Club and also one of the best loved. To us he was just Tommy Lisle, and a finer fellow you could just never meet.

Tommy was born in Exeter, Devonshire, England, where he began his editorial career in London. He covered racing events for the Temple Press Ltd., a London trade journal.

In 1914 he came to the United States. In the thirties he served as executive editor of World Petroleum Magazine of New York, a magazine which he had helped to found. Concurrently he was also editor of the companion Petroleum Times of London, England.

As an expert in the Marine field, he served as special advisor to the Anti-Submarine Board in World War I. During World War II he served as executive editor of The Log, a marine journal published in San Francisco.

Tommy retired from active publication in 1956 and moved to Fort Worth, Texas. Here, unknown to most of us he fought a grim three year bout with cancer complicated by a leaking heart valve and passed on to his final reward.

He was an avid collector of minerals and one of the lucky few who had free entry to the famous Prospect Park Quarry in Paterson, N. J. Many a collector will cherish his great generosity for the specimens he received from Tommy, for at Prospect Park he collected more for others than he did for himself.

He loved amethyst very much, and this was good, for amethyst denotes sincerity, a quality of which he possessed much. It was a happy day for Tommy when the amethyst and the smokies were running good at Prospect Park. Although his age had begun to take its toll, he became young again.

Tommy was 73 years old when he died. He is survived by his wife, Enid M. Lisle; his son, B. Orchard Lisle, both of Fort Worth, and a daughter, Mrs. Charles A. Neal of Colorado Springs, Colo.

Victor Pribil, President
New York Mineralogical Club, Inc.

CLAY LEDBETTER (Obituary Notice)

Paul C. Frost, of Cedar Hill, Texas, informs us of the passing of Clay Ledbetter, 2126 McKenzie, Waco, Texas. Mr. Ledbetter was a mineral dealer and lapidary, and one of our most faithful advertisers. He had been advertising in R&M for many years. His passing will be mourned by all his friends.

"He passed away December 26, 1959, in Waco, Texas. He had been in the hospital about 18 days. I believe he was 72."—letter dated January 20, 1960, from Mr. Frost.

WITH OUR ADVERTISERS

Conducted by James N. Bourne

c/o Rocks and Minerals. Box 29

Peekskill, N. Y.

Advertisers are cordially invited to submit News Items to this Department

Donald Parser of A. G. Parser, Inc., 54 West 46th St., New York 36, N.Y., has returned from his trip around the world where he has purchased many fine gemstones. He is off again for Africa and Australia to buy rough gems and may be back at this writing. Relates Donald:

"We now are offering exceptional gem rough to satisfy the most critical buyer. We have been in business since 1880 and you will enjoy your dealings with A. G. Parser, Inc., as we are constantly on the look-out for good quality rough gemstones throughout the world that will please all those buying from us. You get only the best in rough gemstones for cabochon or faceting."

Note: A. G. Parser, Inc., is a regular advertiser in R&M and a very good firm to deal with as many of our readers will attest.

From the Victor's of Victor Agate Shop, South 1709 Cedar, Spokane 41, Washington, comes the following:

"It's more than cement, more than ordinary glue. We are talking about our 'Victor Epoxy Adhesive.'"

"For lapidary use, model making, jewelry, repair, mending glass, ceramics, pottery, dishes, etc. Adheres metal to metal, metal to tile, stone or glass. Not effected by common acids, water, oil or ordinary solvents. 50¢ postpaid."

"Also our new fifth edition 'Learn Gem Tumbling & Baroque Jewelry Making' for only \$2.00, is a must for the tumbler. New ideas and complete information about tumbling. Order your copy today. Postpaid in U.S. or Canada. Washington residents add 8¢ tax."

Note: The Victor's "Gem Tumbling" books are quite popular, being authentic and complete and a must for the beginner.

From R. W. Mitchell, Pres., of M.D.R. Manufacturing Co., 4853 West Jefferson Blvd., Los Angeles 16, Calif., who regularly advertises in R&M comes the following:

"We have everything for the faceter as M.D.R. is your most complete Faceting Supply House. Write for our complete list of facet units and Accessories."

"We highly recommend our M.D.R. Master Facet Head., No. 8824 as shown in our ad

this issue, complete with master lap, arbor and splash pan for \$195.66. There are hundreds in use throughout the world and you can depend on its rugged accuracy for year in, year out service."

Note: For those in need of a good facet unit, why wait, send your inquiry to M.D.R. of the above address and get all details on their Master Facet Head, No. 8824.

We would like to print the following item received from our good friend Joseph P. Stachura, 1766 House, Quaker Highway, Rt. 146, Uxbridge, Mass., who advertises regularly through our pages.

"Dear Friends:

We have finally gotten settled and organized again here in our new location, directly opposite the Quaker Plaza Motel, on Rt. 146, about midway between Worcester, Mass. and Providence, R. I.

"Our new hours are Tuesday through Thursday 2-6 P.M. Friday and Saturday 2-9 P.M. and Sundays 2-6 P.M. Closed Mondays, but open anytime if you will call on the phone beforehand. You are always welcomed."

"We have some nice moss agate from India, amethyst from Mexico, rhodonite from Australia, tigereye from So. Africa, rose quartz from Brazil and many, many others."

Note: Mr. Stachura also is an authorized dealer for Covington and B&L Lapidary equipment and handles Elk Blacklight kits.

Lawrence H. Conklin, formerly with Commercial Gem Corp of America is planning to carry on the same type of business except with a stronger accent on mineral specimens.

"Our office at 31 W. 47th St., New York 36, N. Y., and is open weekdays from 9 to 5 and Saturdays 10 to 3, but since we must go out at times, we suggest a phone call before a visit."

"We can show many interesting specimens now, and are receiving new shipments every week. We also have a good stock of cut stones and cutting rough. We hope eventually to publish a price list but until then we will be happy to answer all inquiries."

Note: We wish Mr. Conklin success as he continues in the Mineral Field and readers may note his ad in these pages.

George Sassen, Manufacturing Jewelers, 350 W. 31st St., N.Y.C., has these catalogs available for the lapidary.

"#10 Baroque Mountings 50¢, Lapidary Mountings #13 at 70¢, Lapidary Mountings #14 for \$1.00. Also #17 catalog that is full of original surprises—coming soon. (when available a free copy will be sent to each of our customers.)"

Note: George Sassen's Jewelry items are well known to readers and dealers alike. Their Sterling Mountings are engineered for quality and comfort, are attractive and quite inexpensive.

When looking for microscopes, fluorescent lamps, Riker mounts, lapidary equipment, supplies, books as well as fine mineral specimens; you need look no further than V. D. Hill, 5450-C Portland Rd., Salem, Oregon, whose complete Gem and Mineral Establishment is at your service.

You may also purchase gemstones, diamond saw blades and hardness pencils from V. D. Hill as well as many other items. V. D. Hill is another regular advertiser with R&M the past few years and needs no introduction to readers who have dealt favorably with him from time to time.

Zircons, peridots, garnets etc., we got 'em.

"We have the finest San Carlos, Arizona, peridots: equalling St. Johns in color and luster. All brilliant cut, best quality. Also Idaho purple garnets of different sizes and zircons from Siam in blues, whites and orangey-brown color. Send 4¢ stamp for Winter price listings."

Note: Above item as received from Don L. Jackson, Box 458, Claypool, Ariz.

A good many readers are looking for select mineral specimens from world-wide localities. Well, they may be had by contacting Schortmann's Minerals, 6 McKinley Ave., Easthampton, Mass., who for many years have specialized in such specimens. A recent letter from them states:

"We also sell mineralights, books, magnifiers and many other rockhound items can be acquired through our ad each issue in R&M. Prompt service is extended to all, so let us hear from you soon."

Donald A. Murray, Pres., Murray American Corp., 15 Commerce St., Chatham, N.J., sends us the following note:

"Something New! Just arrived from India. Beautiful blue aventurine. Our supply is limited, so place your order at once. Note our ad in display section of R&M this issue for

further details. We also have a new shipment of moss agate that is of excellent quality and most attractive. Send for our complete price list."

Sam Frost, of the Tepee Trading Post, U.S. Rt. 9, Lake George, N. Y., informs us that he has just received a new shipment of some very fine cabochon rough from Brazil. This has been sized especially for the amateur cutter. See their ad in this issue.

Sam invites all area and traveling rockhounds and cutters to stop in for a chat. The shop is open everyday, including Sundays. He also specializes in fine faceting rough and the more unusual cat's-eye material such as Morganite, aqua, tourmaline, goshenite, and chrysoberyl cat's-eye.

Note: Sam is a genial chap and will give a sincere welcome to all.

For those visiting in Vermont this coming summer be sure to stop in and see Mr. & Mrs. Gordon Leavitt of the Nutmeg Rock Shop, South Dorset, Vt., and meet two very nice people who handle lapidary equipment and minerals and are most eager to be of service to your needs. Note their ad with each issue of R&M via our display section.

The Year Is Done

CONTINUED FROM PAGE 108

I would consider myself unworthy of the honor you bestowed a year ago, if, as my last official act as your President, I did not humbly and reverently bow my head in gratitude to HIM, who sustained and guided me throughout the year.

Ernest Weidhaas.

Editor's Note: The Westchester Mineral and Gem Society meets in the County Center, White Plains, N. Y.

WE ARE SORRY!

Editor R&M:

I should like to call to your attention a mistake which was made in my recent article "Small Barite Nodules from Ovid, Colorado" which appeared in ROCKS AND MINERALS, Vol. 35, 9-11 (Jan.-Feb., 1960).

The crystal drawing of Fig. 3 was reproduced upside-down. The description of the figure, given in the text on page 10, is correct only when the crystal drawing is properly oriented. Perhaps this mistake should be brought to the attention of your readers in a subsequent issue of the magazine.

Richard S. Mitchell
Dept. of Geology
University of Virginia
Charlottesville, Va.

THE CHAMBER OF COMMERCE
of
SPRUCE PINE, NORTH CAROLINA

Proudly announces its

SECOND ANNUAL
Mineral and Gem Festival

AUGUST 10, 11, 12, 13, 1960

at the Harris High School
Spruce Pine, N. C.

Individual and Club Competitive Exhibits

Dealer Displays

Special Exhibits

Swap Shop

Commercial Exhibits

Craft Room

Lectures and Films

Guided Field Trips

Entertainment

For complete Program and Lodging Information please write to

MINERAL AND GEM FESTIVAL

Spruce Pine, N. C.

Remember 1958!! The huge Eastern Federation Show in Asheville? Well, it's



ASHEVILLE AGAIN!

**10th Annual
Eastern Federation**

Gem and Mineral Show

In Western North Carolina

***“Mineral Showcase
of America”***

Municipal Auditorium

Asheville, N. C.

(Air Conditioned)

AUGUST 4, 5, 6, 1960

FIELD TRIPS AUGUST 7 - 13

(Information: Write Chamber of Commerce, Asheville, N. C.)

Hosts:

Southern Appalachian Mineral Society

Plan now to spend a REAL mineral vacation in the Land of the sky in August

HEART OF CONNECTICUT GEM AND MINERAL SHOW

Saturday and Sunday, June 25 and 26, 1960

Held in new, modern American Legion Bldg.
off Conn. Route 151, Moodus, Connecticut

FIELD TRIPS — SNACK BAR — SWAP ROOM

LECTURES — SPECIAL FEATURES — PRIZES

HOST — MIDDLESEX COUNTY MINERAL CLUB, INC.

Dealers Solicited — Contact

Mrs. Robert P. Gallant, Chairman

Box 32, Moodus, Connecticut

TED HILTON'S

"Most Unique Resort in America"

American Plan or Transient Meals

(Fabulous Chicken Bar-b-Que served Saturday evenings)

Special rates for food and lodging while attending

GEM AND MINERAL SHOW

Early reservations advised

Contact Ted Hilton, Moodus, Connecticut

Women's Corner

CONTINUED FROM PAGE 138

place. The whole area smells of natural gas and crude oil.

Anyway for people who were positively not on a collecting trip we did very well.

I'm enclosing samples of the fossiliferous rocks from Ceres, and a rather nice specimen of dolomite from the Penfield quarry.

Olive M. Delaney

37 Cliff St.

Yonkers, N. Y.

Two interesting fossiliferous rocks from Ceres, N. Y., were received. One was a light brown sandstone, the other a gray limestone, and both contained fossil shells (brachiopods).

Two beautiful crystallized white dolomites from the Penfield quarry were received—very, very nice!



SKILL IS EASY

With the Finest Tools and Supplies

A COMPLETE LINE OF SUPPLIES FOR BOTH GEM-CUTTER, JEWELER AND COLLECTOR, CAN BE FOUND IN OUR NEW 1960 CATALOG.

Imported and Domestic Gem Rough, Precious, Semi-Precious, Rare Cut Gems, Lapidary and Jewelers Supplies, Lapidary Equipment, Silver Supplies, Jewelry Findings, Mountings of all types, Mineralights, Decorative Minerals, Collectors Items, Books. Catalog \$1.00 per copy, refunded on first \$10.00 order.

**GEM CUTTING, JEWELRY WORK,
STONE SETTING TO ORDER**

Office and Showroom open Monday to Saturday from 1 to 6 P.M.

Technicraft Lapidaries Corporation

3560 BROADWAY, Dept. R, N.Y. 31, N.Y.

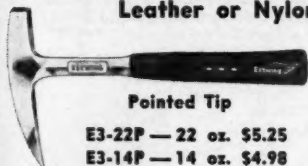
Phone: AD 4-5823

ROCKS AND MINERALS

1st Choice of ROCKHOUNDS

Estwing Unbreakable Rock Picks

Forged One-Piece Head-Handle of Finest Tool Steel — Unsurpassed Temper — Head Can't Loosen or Come Off — Choice of Genuine Leather or Nylon-Vinyl Deep Cushion Grip —



Pointed Tip

E3-22P — 22 oz. \$5.25

E3-14P — 14 oz. \$4.98



Chisel Edge

E3-20PC — 20 oz. \$5.50

E3-12PC — 12 oz. \$4.98

SUPREME

Everlasting Nylon-Vinyl Deep Cushion Grip — Molded On. Will Never Loosen, Come Off or Wear Out. Absorbs All Shock.



LEATHER BELT SHEATH

for Pointed Tip

\$1.00

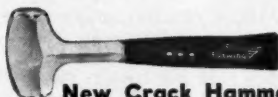


Pointed Tip

E30 — 22 oz. \$4.98

Genuine Leather Grip

Tough, Durable Sole Leather Washers — Withstands All Exposures and Climates.



New Crack Hammer

B3-2LB — 32 oz. — \$5.25

B3-3LB — 48 oz. — \$5.50

Ideal for Rock Breaking, Cracking and All Heavy Pounding. Same Supreme Construction as Estwing Rock Picks.

Estwing Unbreakable Sportsmen's Axes

World Famous Along The Trail, Camping, Scouting, etc.



New!

**Supreme with
Nylon-Vinyl Deep
Cushion Grip —**

Length 13½"

Width of Cut 3¼"

E3-24A List \$6.50

New! Light Weight

Length — 12"

Width of Cut 2¾"

E14A — List \$5.50



**Original Leather Grip
One-Piece Head-Handle
Finest Tool Steel**

Length 13½"

Width of Cut 3¼"

E24A List \$5.85



Send For

Camp in Comfort Book

Contains 40 photos of actual camp making and practical tips on use of picks and axe. Read it . . . make camping more fun. Pocket size — 64 pages. Only 25c. Send coin, no stamps.

Estwing 
Mfg. Co.
DEPT. RM-3
Rockford, Illinois

MICROMOUNTS

GOLD! Dainty Crystals and beaded filagree Wires from Kittitas County, Washington. Cluster of Crystals or one or more Wires; UNMOUNTED, \$1.20 to \$2.00.

Thumbnails and larger Cabinet Specimens, Masses of Arborescent and Filagree **GOLD**; five dollars to seventy dollars.

Carefully cushioned in double container to assure against damage in Mail. Full refund for return of any or all Specimens if Buyer is not PLEASED.

PLATINUM Micromounts: Bright, Radiating Sharp Tinies from Alaska, UNMOUNTED ONE DOLLAR.

Advanced Collectors have written letters of Appreciation.

Names on request.

FRANK H. WASKEY OAKVILLE, WASHINGTON

VESCOVI'S MINERALS

AURELIA VESCOVI, prop. VICTOR VESCOVI, Consultant, Chemist & Mineralogist
THE WONDER BORATES THAT MADE BORON FAMOUS

We have the largest, **CHEAPEST**, and most beautiful stock of all boron minerals in any size, including Tunellite (new strontium borate) and new iron sulphide.

BIG BARGAIN: Ten, approx. 2 x 2" labelled boron minerals including: Borax, Ulexite, Probertite, Inderite, Lesserite, Kernite, Colemanite for only \$1.50 postpaid. Fifteen micromount xls, including new iron sulphide, same price. Ulexite to make spheres 30¢ lb. fob Boron. Correspondence also in the Italian, Spanish and French languages.

12167 JAMES at ANDERSON, 2 Blocks north, off Highway 466, BORON

MAILING ADDRESS: P.O. BOX 141, BORON, CALIFORNIA

Mexican Lace Agate

Select color & pattern material \$1.50 lb.

Choicest slabs 35¢ sq. inch.

Frantom Lapidary equipment.

Congo diamond saw blades.

Kane Lapidary & Supply

2813 N. 16th Street Phoenix, Arizona

CHOICE MINERALS

Jewelry, Cutting Materials, Books, Supplies, Highland Park Equipment, Auth. Covington Dealer, Bruce Bars now in stock.

JOE & LIL STACHURA

1766 House, Rt. 146

Quaker Highway

Uxbridge, Mass. Ph. CR. 8-3346



Faceted Gems From Don

Rare Orthoclase, Idaho Purple Garnets, Arizona Peridots, Siam Zircons and Star Sapphires (black) Mexican opals and novelties, Amethyst, Citrines, rock Crystals etc. Carved, cabbed, rough and cut materials. Get acquainted special, Current listings, a Garnet, Peridot, Zircon and Amethyst faceted gems 3 to 5mm sizes, postpaid \$1.25. List without gems sent for 4¢ stamp.

DON L. JACKSON

Box 458, Claypool, Arizona, Phone GA. 5-5868 for home and shop address if passing thru.

BURLEY OBSIDIAN

Mahogany and black mixed. Iridescent translucent, banded and gold sheen in each burl. Burls from 1 lb. to 5 lbs. gem quality. Minimum 5 lbs. at \$6.50 10 lbs. at \$12.00. Dealer's inquire for prices.

Ponderosa Gem Mines

625 Walnut St.

Red Bluff, Calif.

Invest in the BEST Minerals



The Magic of MINERALIGHT®!

Your rock collection—interesting in white light—OH, so beautiful when you turn on your Mineralight!

You'll see a colorful new world of fluorescent beauty in minerals—visible only in ultra-violet rays!

SEVEN models — one exactly right for you.



SL-2537



← NH "Cub"

A genuine short-wave lamp for 110-V. AC only. Price includes 6 small trays of fluorescent minerals plus a mineral identification booklet. UL Approved.

ONLY \$14.75

SL-2537. Most popular of Mineralight models. Ideal for home use. Versatile unit adaptable for field use. Has high silica transmitting tube and Alzak reflector for greatest U.V. output. UL Approved.

ONLY \$39.50

For name and address of nearest dealer or further information, write

ULTRA-VIOLET PRODUCTS, INC.
San Gabriel, California



RM 3-4

U. V. RAY

DO YOU LIKE ONE-HUNDRED PERCENT CHOICE ROUGH GEMSTONES FROM THROUGHOUT THE WORLD FOR CABOCHON OR FACETING? If so, please remember the headquarters in the U.S.A. for exceptional gem rough—

A. G. PARSER, INC.

54 WEST 46th STREET

NEW YORK 36, NEW YORK

Tele: Columbus 5-1605, 1606, 1607

In Business Since 1880

Members of the American Gem & Mineral Suppliers Association.

We have a fine descriptive catalog available for 50 cents, refundable on first \$7.50 order. You will enjoy doing business with us.

Mr. Donald Parser just came back from around the world trip, where he purchased lovely gemstones. He is now leaving for Africa and Australia on a trip to buy rough gems.

Buy your gems from the folks that have no lapidary connections whatsoever anywhere. We only deal in rough gemstones to satisfy the critical.

HAVING TROUBLE GETTING GOOD OPAL?

Why not let us send you a **NO DEPOSIT APPROVAL SELECTION** We want you to see the opal first. Compare our quality and prices, THEN DECIDE.

We have everything in opal from the cheap beginner grade to the finest gem quality. Also a nice selection of specimen opal.

WRITE FOR A SELECTION TODAY
Adults only, please
FREE LIST

Western Rock & Gem

"OPALS EXCLUSIVELY"

20385 Stanton Avenue
Castro Valley, California

GOLD PAN ROCK SHOP

Gems — Minerals — Cutting Material
Mineral Specimens — Lapidary Supplies
JOHN L. and ETTA JAMES,

Props.

2020 N. Carson St.
Carson City, Nevada
on Hwy. 395



NEW!

"LLANO GRANDE" Opalized wood; Colombia, South America. Specimen and cutting, brilliant colors and beautiful patterns. Some limb sections with bark and cell structure intact. Our Geologist says this is the finest material of its kind that he has ever seen. You will have to see it to believe it. Low specific gravity means you are getting more material area per pound.

	1/25	25/100	100 up
"Llano Grande" Opalized wood			
(we are exclusive importers) lb.	\$3.00	\$2.00	\$1.75
Gold Sheen Obsidian—Mexico	2.00	1.75	1.50
"Caledonia" Orbicular Chalcedony—Mexico	1.75	1.50	1.25
Rio Grande Agate—Hand selected	.80	.70	.60
³ / ₁₆ " to ¹ / ₄ " thick slabs per square			
inch any of above material		.35	.30

We have many other materials for the cutter and the collector, imported and domestic. Write for lists.

All prices FOB Edinburg, Texas and subject to change without notice. Drop shipments of pool orders of 100# lbs. up in minimum of 20 lbs. each shipment. Return privilege guaranteed on all uncut and undamaged material.

DOWELL'S

2205 So. U. S. 281 Highway
P. O. Drawer 509
Edinburg, Texas

TEXICAN Arts and Crafts

PH. DUDley 3-2541

You Can Buy .. GOLD .. Now Lawfully

We have a limited quantity of U. S. Twenty Dollar **GOLD COINS**. (collectors items) condition extra fine or better. Price \$49.50 each, postpaid and insured. (our selection of dates). **GOLD** may advance soon to \$70.00 or more per ounce, which would make them worth double their present value. **GOLD** is the safest investment in the world today. Protect yourself against further inflation.

Canon City Gold Shop

P. O. Box 709
Canon City, Colo.

Rockhound Headquarters in Kansas
Direct distributor of

NORTON GRINDING WHEELS

Size	100 grit	220 grit
4 x 3/4 in.	\$ 2.85	\$ 3.15
6 x 1/2 in.	\$ 4.30	
6 x 1 in.	\$ 5.85	\$ 6.40
8 x 1 in.	\$ 8.70	\$ 9.60
8 x 1 1/2 in.	\$12.15	\$13.40
10 x 1 1/2 in.	\$18.40	\$20.30

Prices subject to change without notice.

Please add sufficient postage.

Dealer inquiries on letterhead.

EBERSOLE LAPIDARY SUPPLY

Dept. R

11417 West Highway 54, Wichita, Kansas

Something New! Just Arrived from India!

BLUE AVENTURINE

Beautiful — beautiful BLUE. Supply is limited, so place your order at once. \$4.50 a lb. plus postage.

Also, new shipment of MOSS AGATE. Excellent quality and most attractive. \$1.20 a lb. plus postage.

Have Large Stocks of Brazilian Rough Material. Send For Our Complete Price List. Plus 10% Excise Tax.

Murray American Corporation

15 Commerce Street Chatham, N. J.

DIAMONDS

Always the best investment for jewelry or your collection. We offer an interesting selection, a few of which we list below. We will answer inquiries for any size Diamond, any color or shape, quoting you prices that reflect our close contact with the Diamond industry here in New York.

1 Pale Green Pearshape	.66 ct.	\$163.68
1 " " "	.97 ct.	240.56
1 " " Marquise	.76 ct.	188.48
1 " " Brown Round	.71 ct.	176.08
1 Pale " "	.30 ct.	79.50
1 Yellow " "	.43 ct.	106.64
1 Golden " "	.29 ct.	71.92
1 White " "	.32 ct.	80.00
1 " " "	.25 ct.	56.25
1 " " "	1.02 ct.	663.00
1 " " Marquise	.55 ct.	165.00
1 Black " Round	.99 ct.	178.20

AMETHYST — February Birthstone. Special Purchase. Deep Purple Ovals & Octagons. 12 to 25 carats each at \$0.75 per carat.

All items are postpaid, but taxes are extra on cut stones. Available by mail or here at our office 9 A.M. to 5 P.M. (Sat. 10-3)

Lawrence H. Conklin

31 West 47th Street, New York 36, N. Y.

Plaza 7-2264

MINERALS

Amethyst crystal clusters, deep purple, Uruguay \$2 — \$15.00 each.

(One museum specimen weighing 30 lbs. at \$350.00)

Sulfur — groups of fine yellow crystals, Sicily — \$3.50 — \$20.00 each

Single Specimens

Pyrite, large single xl	Spain	\$3.25
Diamond xl, in matrix	Africa	125.00
Molybdenite, xld in matrix	Canada	2.50
Azurite, xld on matrix	Mexico	5.00
Apatite, large single xl	"	5.00
Spessartite, xld mass	Brazil	8.00
Topaz, large white gem xl	Africa	75.00
Tourmaline, large pink xl	Calif.	50.00
Peridot, term. gem xl	Egypt	10.00
Cuprite, xld on rock	Cuba	8.00

This is a random selection from our stock. Please write for further descriptions, or drop in to examine these and many other specimens.



HIGHEST QUALITY AT LOWEST PRICES FROM YOUR CRESTMARK DEALER

If you don't know your nearest Crestmark Dealer write direct.

All items are 18 karat Gold or Rhodium Plate, not gilt or "gold color".

Please state choice of Gold or Rhodium when ordering.

C-56 NECKCHAIN 16 inch, an all brass curb chain which is heavily plated in your choice of finish, complete with spring ring. The finest buy on the market today: 6 each 55c; 1 dozen 95c; 1 gross \$9.50.

C-57 NECKCHAIN 18 inch, same as above except 18 inches long: 6 each 60c; 1 dozen \$1.00; 1 gross \$10.00.

F-72 BOWPINS with safety catch back, to hang baroques, pendants, etc.: 6 each 55c; 1 dozen \$1.00; 1 gross \$11.25.

CL-200 BRACELET, 6 oval embossed flat links to cement 6 UNMATCHED stones, 7 inches long complete with fold over clasp: 1 each 34c; 1 dozen \$3.68; 1 gross \$39.88.

F-92 BELL CAPS with 7 filagree fingers, annealed for ease in fitting to stones: 1 dozen 25c; 1 gross \$2.30; 5 gross \$10.75.

F-90 BELL CAPS designed specifically for the new Epoxy Resins, look well on any size stone: 72 each \$1.00; 1 gross \$1.75; 5 gross \$6.25.

SA-50 STERLING SILVER ADJUSTABLE RINGS for women or children. Pad for cementing a small baroque: 1 each 27c; 1 dozen \$2.84; 1 gross \$30.83.

F-70 ALLIGATOR TIE BARS, 1 1/2 inches long: 6 each 55c; 1 dozen \$1.00; 1 gross \$11.80.

E-230 CERIUM OXIDE, 90% pure, finest lapidary grade obtainable: \$2.20 per pound.

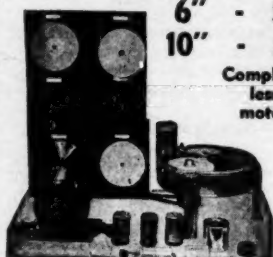
All orders over \$4.00 sent postpaid with complete Price List. Please include 10% FET DEALERS: If you are not handling the Crestmark Line we are certain that you will be pleased with our wholesale price list. Send for your free copy today.

CRESTMARK MANUFACTURING COMPANY

629 Saddle River Road

Rochelle Park, New Jersey

THE GEM MAKER



6" - \$36.50
10" - \$64.50

Complete
less
motor

GEMSTONES OF NORTH AMERICA

By John Sinkankas



- Complete book on North American gemstones
 - Detailed descriptions of gem localities
 - Richly illustrated, including color
 - Formations in which gems are found
 - Pearls and non-mineral gemstones
- This will be the definitive reference book on North American gemstones for years to come. A BASIC BOOK FOR YOUR GEM LIBRARY. \$15.00 Ppd.

Direct Factory stock on hand. Representatives with
Highland Park
Felker

Estwing
B & I

Gemlap
Graves
Lee

Stonemaster
Vi-Bro-Lap
Covington
Victor
Alta

All kinds of supplies.

Fine Mineral Specimens

Open Every Day & Evening

All Year.

Lost Cave Mineral Shop

Hellertown, Pa.

Tel. TErrace 8-8767

SET OF MEXICAN MINERALS

A colorful assortment of xls and xl groups plus a FIRE OPAL; there are 18 quality specimens averaging 1" and they normally sell for 35¢ to 50¢ each. Wulfenite, vanadinite, austinite, rosasite, etc. included. This set packed in a handsome Sumner compartmented wooden box (worth \$3.00) and sent postpaid for only \$8.50.

The Prospectors Shop

201 San Francisco

Santa Fe, N. M.



Largest Fairburn Agate in middle west

We have it—and almost everything in Rocks and Minerals, Jewelry Findings, Indian artifacts. Many Collectors items. Write for list.

Equipment, supplies and tools available
HIGHLAND PARK and COVINGTON
Equipment Dealers.

We are easy to find at one block West of U.S. 41 at 169th St. Visitors Welcome. Phone WEStmore 1-3285.

THE HARVEYS

"Covington Lapidary equipment"
Rocks and Minerals

6905 Madison Avenue Hammond, Ind.

AQUAMARINES

First Come!

First Served!

Genuine, Authentic, Faceted Aquamarines
**MAGNIFICENT SPARKLING GEMS
OF THE FIRST WATER**

With a refractive index of 1.57, 2½ carat to 5 carat stones, based on quality. Never before offered at this ridiculously low price.

Only \$5.00 Each Postpaid
Fax paid

M. SEIDMAN

144-06 Grand Central Parkway

Jamaica 35 AXtel 1-8719 New York

Buy a Good

Mineralogical Book

BACK NUMBERS

OF

ROCKS and MINERALS

The following are some numbers available with an important article that appears in each:

No. 3—March 1927.	The Agate	40c
No. 13—Sept. 1929.	Caverns of Pennsylvania	40c
No. 17—Sept. 1930.	My Minerals Discoveries Since 1879	40c
No. 29—Sept. 1933.	Mineralogy Club Programs for Secondary Schools	40c
No. 34—April 1934.	Topaz in the Tarryall Mts. of Colorado	25c
No. 54—Dec. 1935.	Crystal Peak near Florissant, Colorado	30c
No. 65—Dec. 1936.	Casual mineral collecting in Europe	30c
No. 68—March 1937.	Topaz on Baldface Mt., N. H.	30c
No. 73—Aug. 1937.	We collected minerals in Georgia	30c
No. 85—Aug. 1938.	Mineralogy and the blowpipe art	30c
No. 90—Jan. 1939.	Collecting with a camera	30c
No. 92—March 1939.	Minerals of Florida	30c
No. 94—May 1939.	Graves Mt., Georgia	30c
No. 98—Sept. 1939.	Maine pegmatite belt	30c
No. 99—Oct. 1939.	Gold mines near Washington, D. C.	30c
No. 100—Nov. 1939.	Home made mineral cabinet	30c
No. 124—Nov. 1941.	Collecting in Northern Vermont	30c
No. 130—May 1942.	An introduction to the garnet	30c
No. 148—Nov. 1943.	Some minerals of Nebraska	30c
No. 153—April 1944.	Redondo Beach, Calif., and beach pebbles — New Britain Island	25c
No. 159—Oct. 1944.	Unusual calcite crystals (Texas) — Trip to Great Notch, N. J.	25c
No. 186—Jan. 1947.	Phosphorite from the sea floor — Collecting near Turret, Colo.	40c
No. 192—July 1947.	Agni Mani — Magic gem of the Orient — Table Mt. Zeolites (Colo.)	40c
No. 193—Aug. 1957.	Flint Ridge, Ohio — Collecting minerals in 1847	40c
No. 195—Oct. 1947.	Fumarole Butte, Utah — Jasper near Milton, Vt.	40c
No. 198—Jan. 1948.	Plunge pools, potholes, and related features	40c
No. 200—March 1948.	Skull Valley area, Utah — City of Sculpture	40c
No. 201—April 1948.	Camelback Caves, Utah — Rockhound goes visiting	40c
No. 266—Sept. - Oct. 1958.	Lapis Lazuli Locality, Ovalle, Chile	60c
No. 267—Nov. - Dec. 1958.	Chemical Elements in Nature	60c

ROCKS and MINERALS

BOX 29

PEEKSKILL, N. Y.

**NOTES ON THE MINERALS OF
FRANKLIN AND STERLING HILL,
NEW JERSEY**

By

JOHN S. ALBANESE

There has been in recent years a crying need for up-to-date information on the minerals of this unique zinc deposit. The last authoritative book on the subject was the one by the late Professor Charles Palache, published in 1934.

To meet this demand, this publication will treat on the mineralogy, the old and new minerals and the history of the old mines which yielded the interesting and rare mineral species which created world wide interest among men of science. The mineral collector, as well as the student of mineralogy, will find there is much romance left in them the zinc hills of Sussex County, New Jersey.

Published quarterly - January, April, July, October.

Subscription \$2.00 a year.

JOHN S. ALBANESE

P. O. Box 221

Union, New Jersey

**ADVERTISERS,
PLEASE COOPERATE**

You would help us a lot if you would take time in preparing your ad copy for Rocks and Minerals. Poorly typed or badly scribbled copies are most trying to decipher. Prepare your copy carefully and don't crowd it. Don't try to squeeze two pages into one page of ad space.

OPAL - OPAL - OPAL

World's Finest Quality !!!

One full ounce, airmail, postpaid, of beautiful opal chips, mostly cutting size, for only \$7.50.

Over one full oz. of large, (one inch by 1/2 inch and over). All cutting, minimum waste, quality gem opal. Airmail and postpaid. A sacrifice at only \$10.00. Money refunded if not pleased. Airmail letters, answered same day received. Write: The Amateur Lapidary.

MAJOR GEORGE W. OWENS

444 The Horsley Drive,
Fairfield, N. S. W.
Austral a

**WANTED - AMERICAN
MINERALOGIST**

Volumes 1 thru 5 incl. (Complete)

Volume 7; No. 2

Volume 10; No. 3

Will purchase or trade for crystallized minerals, or rare earth minerals.

NEAL YEDLIN

129 Englewood Drive New Haven, Conn.

**Second Edition Enlarged
ARIZONA GEM FIELDS**

By **ALTON DUKE**

The latest and most complete book on Arizona's Gem Fields. Concise-Accurate-Detailed Maps—Pictures—Covering Arizona's better known Gem Fields. Written with tourist rockhounds in mind. All fields accessible by modern automobile.

ARIZONA GEM FIELDS

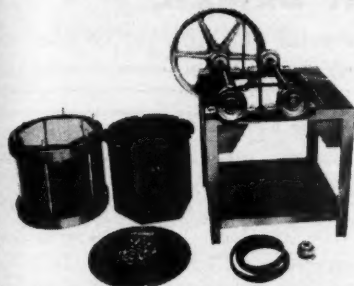
P.O. Box 1402 Yuma, Arizona

Price \$2.50—Add 8c postage

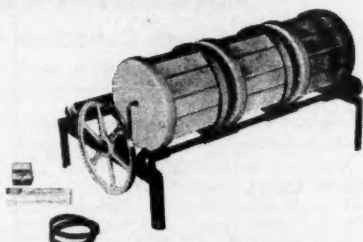
Liberal Discount to Dealers

**Make Collecting
Rocks - Minerals
Your Hobby**

THE NEW SCOTT-MURRAY HY-POL* TUMBLER



This is your new Scott-Murray HY-POL tumbling machine. This machine has a 3/16 inch thick removable rubber insert liner, a completely new and different concept in tumbling machines. The new HY-POL barrels are practically noiseless. Any material, no matter how soft or fragile, can be tumbled in this barrel, without fear of chipping or breaking. The whole end of the barrel and liner are removable, making cleaning no problem. The liners are made of excellent quality Camelback Rubber—the same rubber used in manufacture of automobile tires—and are nearly indestructible. The SCOTT-MURRAY capacity is 5 quarts per barrel. It runs on two 5/8 inch rubber covered steel shafts which are supported by four heavy duty porous bronze bearings. Any 1/6 or 1/4 h.p. motor will run this machine. It comes equipped with all belts and pulleys and requires only 12 x 12 1/2 inches floor space. **HY-POL 8" Single Barrel Tumbling Machine \$42.50.**



The SCOTT-MURRAY 8 RA tumbler.

This three barrel machine is designed to the same high quality specifications as the single barrel unit. Each of the three barrels is of the same dimension and capacity as the single unit and each has the removable rubber liner. You may run one, two or three barrels, depending on your requirements. The unit comes with all necessary belts and pulleys and needs only 36 x 24 inches floor space. **HY-POL 8" Triple Barrel Tumbling Machine \$87.95.**

*patent applied for

**WHEN YOU HAVE A SCOTT-MURRAY
YOU HAVE THE VERY BEST**

**DON BOBO'S
LAPIDARY PRODUCTS**

612 and 614 West 65th Street
P.O. BOX 5131 BALLARD STATION
SEATTLE 7 WASHINGTON

OPAL INTRODUCTORY PACKAGE TOTAL WEIGHT MANY DIFFERENT TYPES OF MINIMUM OF 4 OZS. AUSTRALIAN OPAL Only \$10.00 postpaid

Contains 1 piece each of the following:—

- Opalised fossilized shell from Coober Pedy—Specimen (limited quantity) (sub. may be sent).
- Blue Green opal from Andamooka—Cutting or specimen.
- White opal from Coober Pedy—Cutting or specimen.
- Boulder Opal vein in grey ironstone from Quilpie—Specimen only.
- Black Opal Nobby from Lightning Ridge—Cutting or specimen.

FREE OPAL SPECIAL: Especially for beginners to opal. We will send you a piece of close 25 cent coin for handling and mailing. You must enclose a gummed self addressed label to qualify for this offer. **SATISFACTION GUARANTEED OR MONEY REFUNDED.**

Telephone:
Cherry 1-7364

QUALITY OPALS

Dr. R. T. Boyd, F. G. A.

Jean M. Boyd

77 Cornelius Pkwy.,
Toronto 15, Canada

When in Vermont Visit

**Vails Motor Court
and
Mineral Shop**

Route 11 west, Chester, Vermont

THE THURSTON'S

Morningdale, Mass.

Choice minerals and fossils

Send 5c for either General Catalog of minerals, Fossil Catalog or Crystal list. Come and see us. Located off Rt. No. 70 in Morningdale section of Boylston, Mass.



DIRECT FROM BRAZIL



Unusual Rough Cabochon Material of Choicest Grade

Selected pieces small enough to work in your shop with a minimum of waste.

PEACH MORGANITE

If it weren't for some small bubbles this would be facet grade, and the color is excellent. Pieces 1/2 oz. and up\$3.00 oz.

GREEN BERYL

Very fine selected material of bright green color in fracture-free xl. sections and amorphous pieces. 1/2 oz. and up\$6.00 oz.

TOURMALINATED QUARTZ

Clear quartz shot thru with heavy black tourmaline xls. This is a nice change from rutilated quartz. 1/3 oz. and up\$1.00 oz.

BICOLORED TOURMALINE

Very lively bicolor and tricolor material including blue, pink, and green colors. Pieces average 2-7 per oz.\$8.00 oz.

AQUAMARINE

Very nice blue color and quality with many areas of good faceting material. Pieces 1/2 oz. and up\$3.00 oz.

BLUE TOPAZ

Crystal sections and stream-worn pebbles in light to excellent blue color. Pieces average 2-4 per oz. and up\$1.50 oz.

AMETHYST

Deep purple color in fine fracture-free pieces that average 3 to 8 per oz. This is nice cabochon material\$1.50 oz.

ASTERIATED ROSE QUARTZ

Finest solid cabochon material of deep rich rose color. With proper orientation will cut stars. 2 oz. pieces and up\$1.00 oz.

SPECIAL — 1/2 LB. ASSORTMENT THAT INCLUDES EACH OF THE ABOVE \$20.00

All material sold on our money-back guarantee. We pay postage.

Minimum Order of \$5.00, Please

TEPEE TRADING POST

Phone
Lake George
2163

on U.S. Rte. #9, 3 miles south of Lake George, N. Y. Write Box 151
Open every day including Sunday, 9 A.M. - 6 P.M. Lake George,
N. Y.

ORCHARD QUARTZ

Rare beautiful pink with purple tint, transparent. World's finest gem quality quartz: first quality deep color. faceting \$4.00 lb. Cabochon \$1.75 lb. Light color faceting \$2.00 lb. Postpaid send check or money order.

Ponderosa Gem Mines

625 Walnut St. Red Bluff, Calif.

WHITE MOUNTAIN MINERAL SHOP

Rockhounds Paradise

Everything in minerals and crystals, foreign & domestic. No postage to pay. Comprehensive catalog featuring over 500 selected specimens 25c. Headquarters for N. H. Uranium. Ultra-violet lights, mineral books and magazines, baroque and findings.

RAMBLIN' RANCH

Campton

New Hampshire

American Indian Arrowheads

Assorted sizes, colors, shapes. Different stone and flint materials from Oklahoma, Texas and New Mexico areas.

These ancient specimens are priced moderately for the quality. At such low prices, it makes sense to add to your collections, or profit from re-sales. You get postpaid:

30 for \$ 6.50

60 for \$12.00

Send your order today. We will make well-packed prompt shipment.

WILLIAM HARDY

BOX 547, ENGLEWOOD CITY,

NEW JERSEY

THE COLLECTORS SHOP

95 Camino Espanol
Tucson, Arizona

Colorful Arizona Minerals

10 for \$2.00

We have other beautiful minerals in all sizes.

BOOK AND LAPIDARY SHOP

Rock jewelry

Specimens—slabs—rough materials.

Findings and supplies.

Metaphysical books and Religious supplies.

Write for mail order book list.

3014, 25th Ave. Gulfport, Mississippi.

On U.S. Highway 49.

For an unflinching supply of cutting material and equipment, depend on a **FULL-TIME Lapidary Shop**. Open daily, except Tuesday and Sunday morning.

THE RILEY ROCK SHOP

R.D. 2, Dalton Rd., Springfield, Ohio

Phone: WOODland 4-1460

MONADNOCK MINERAL SHOP

"The Friendly Shop"

Jaffrey Rd. Rt. 124 Marlboro, N. H.

Beautiful blue beryl baroque. General mineral specimens. Directions for happy digging in this area. So much to interest you.

Helen Bradley

Helen Whitehead

Advertise in Rocks and Minerals

Brazilian Stones

**ON THE SHORTEST ROUTE
FROM THE MINE TO YOU**

ROUGH—for tumbling—cabbings—faceting.

CUT—all sizes and shapes, faceted and cabochons.

SPECIMENS—for collecting and display.

Aquamarines

Tourmalines

Amethysts

Garnets

Morganites

Topaz

Green Beryls

Rutilated Quartz

Citrines

Chrysoberyls

Rose Quartz

Smoky Quartz

Our gem and tumbling rough is obtained, partly from our own mines, by members of our staff who cover remote areas in the interior of Brazil and ship directly from our office in Rio De Janeiro. This setup enables us to offer you the best in value and volume.

Inter-Ocean Trade Company

Leading Producers and Importers

48 West 48th St. New York 36, N. Y.

Circle 6-9431



BI-MONTHLY MAGAZINE

Brings you **NEW**, Original, Practical ideas from successful craftsmen . . . Do-It-Yourself plans, patterns and technique by leading writers — not published elsewhere.

FREE

Send For Your
SAMPLE COPY

The Leather Craftsman

P. O. Box 1386, Fort Worth, Texas

Gentlemen:

☐ Please send me a sample copy

☐ Send me 6 months' trial

subscription (3 issues)

\$1.00

Name

Address

City



ATTENTION CRYSTAL HUNTERS! FREE HERKIMER DIAMOND

New booklet tells all about the "Diamond" region. Full of tips on findings crystals anywhere. A beautiful Herkimer Diamond embedded in a pocket in the book. Don't miss this bargain. Offer will be withdrawn when my supply of diamonds is exhausted. Still \$1.00 postpaid.

CLAUDE A. SMITH

**BOX 291
GENEVA, N. Y.**

ARE YOU A ROCK HOBBY ORPHAN?

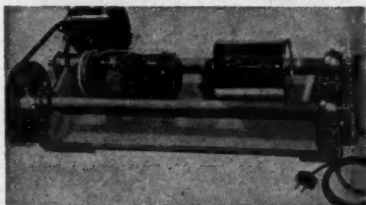
The Rollin' Rock Club of Texas, Inc., may be the organization you have been looking for. International in character, the Rollin' Rock Club has only one official meeting per year. All other business is handled by correspondence and through the quarterly Newsletters which are sent to all members. If interested, you may qualify for membership. For additional information write to:

MRS. ALICE HORN

Box 316

Hiawatha, Kansas. (Secy.)

LITTLE GEM TUMBLER



So Simple, So Easy, a child can get perfect results. Clean, smooth and quiet.
Capacity from 1 to 15 lbs.

39.95

Price including Motor, Cord, Switch and 3 one-quart cans. F.O.B. Atascadero, Calif. SH. WT. 25 lbs.

LITTLE GEM TUMBLER CHARGES mixed in right proportions for best results. Enough for one 1-at. can Coarse 50c—Fine 75c—Polish \$1.00. Calif. residents include 4% sales tax. Add Postage.

DEALERS INVITED

SAVE — BUILD IT YOURSELF — SAVE
We offer you full instructions to build and operate the above tumbler, with all dimensions. What and where to buy all parts, and what to use to get best results.

ALL THIS FOR ONLY \$1.00

BOUTON'S LAPIDARY

So. Hi-way

Atascadero, Calif.

RARE - RARE - RARE

Solid - Facet Grade - Jet Black
PLEONAST

* OFFER LIMITED *

A lucky find enables me to offer a small amount of this very rare material to cutters and collectors. Maximum order accepted is one full ounce so everyone may have a chance at this rare item. Usual price is \$1.00 a carat in the rough. My price is only \$12.50 the half oz.

Full weight in stones that will yield gems of 3 to 10 carats. No junk. Airmail postpaid. Money refunded immediately if not pleased. Write now to:

MAJOR GEORGE W. OWENS

**444 The Horsley Drive,
Fairfield, N. S. W.
Australia**

SMITHSONITE NEW FIND IN MEXICO

Blue/green, glistening, botryoidal, velvety masses

For specimens: Sizes range from 1" @ 25¢, 50¢ to 2" @ \$2.00, \$3.00.

A few larger from \$5.00 to \$10.00

Selected for gem cutting: 50¢ per ounce 1 lb. for \$6.00



The Prospectors Shop

**201 W. San Francisco
Santa Fe, N.M.**

NEW CATALOG

No. 11

now available

56 PAGES—ILLUSTRATED

To help defray printing and postage costs we must charge 50¢ per copy. However, a special coupon will be enclosed that can be redeemed for 50¢ on your first order of \$4.00 or more.

Our Specialty

SELECTED MINERAL SPECIMENS

From World-Wide Localities

SCHORTMANN'S MINERALS

6 McKinley Avenue . Easthampton, Mass

UTAH MINERALS

Dinosaur Slabs—10c per sq. in.—Reasonably complete bones up to 20 lbs. each 50c per lb.

Beautiful Colored wood-slabs, unpolished, 5 to 10c per sq. in. Bulk wood, 50c per lb.

Variscite for cabs. in pieces one inch to 3 inches.

Agate Nodules, 50c per lb., one inch to 4 inches.
Slabs of same—selected. 10c per sq. inch.

Half Nodules—50c per lb., plus 5c per sq. in. for cutting.

Many Uranium Minerals

Tumbled stones of Dino bone—Wood-agate and many others \$7.50 per 100, or pick those you like at 10c each and return balance.

50 Utah Minerals—\$15.00

All Minerals returnable for refund.
Include postage please.

A. L. INGLESBY

TORREY, UTAH

Send for **New Covington Catalog** It's Free

All Equipment sold on Money-Back Guarantee.

Covington **Guaranteed** **Blades**
STATE ARBOR SIZE Heavy Duty Super Std.
Super-Chgd. Chgd. Chgd.

6"	\$ —	\$12.35	\$11.25
8"	17.90	16.40	14.85
9"	19.75	—	—
10"	22.00	19.90	18.50
12"	31.90	28.30	25.75
14"	42.60	36.50	33.20
16"	49.20	43.45	39.50
18"	69.75	59.65	54.25
24"	92.20	82.90	75.50
30"	179.10	Send Add Tax	
36"	267.60	Postage In Calif.	

BUILD YOUR OWN
LAP and save. Free
Catalog shows 15
Build Your Own
Items.



6 Covington
Trim Saws to
choose from in
latest free
Catalog.

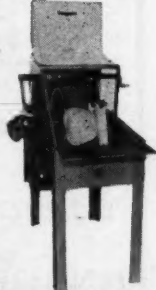
Free Catalog
shows 17
Covington
vertical type
grinders and
polishers.



COVINGTON Equipment Used by the U.S. GOVERNMENT



Multi-Feature
Lapidary Unit.
Free Catalog
shows 8
Covington
Horizontal
models



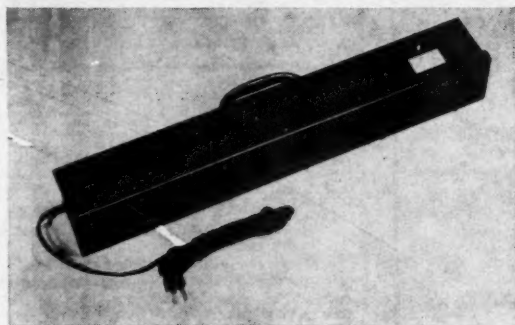
Select any
one of 8
Covington
Slabs Saws
from latest
Free Catalog.

SEE YOUR COVINGTON DEALER — or send for Covington's latest
catalog showing the largest equipment line in the world - IT'S FREE

COVINGTON Lapidary Eng. Corp.

DEALERS WANTED
REDLANDS, R. CALIF.

SPECTACULAR FLUOR ESCENCE



RAYTECH SUPER

\$64.50

model SW-18 shortwave

\$34.50

model LW-18 longwave

COMPARE!

POWER—10 times as much U. V. as most lamps sold

COVERAGE—Alzak reflector and 16" filter give wide brilliance

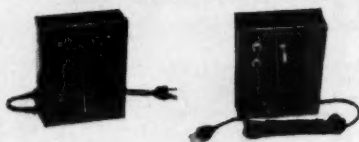
ECONOMY—More ultraviolet per dollar than any other lamp

LIGHTWEIGHT—Only 5½ lbs. and balanced

CONVENIENCE—Large handle, easily removed for mounting.

Housing is 20" long with attractive two coat baked on gray hammertone finish.

LEADING NEW 2 in 1 LAMP



Raytech Dual

\$29.50

model LS-6

Battery Adapter

\$3.75

POWERFUL—Unexcelled in its class

CONVENIENT—Well placed comfortable handle and starters permit one hand operation

LARGE FILTERS—Over 8.4 sq. inches. The largest in its field

SOLID CONSTRUCTION—All metal. No light leaks, rattle or hum

COMPACT—Only 5" x 6½" x 1⅞"

ATTRACTIVE—Handsome, durable 2 coat baked on gray hammertone finish.

Other lamps available—Ask your dealer—Send for Catalog R
Orders: Please include 75¢ with each order for postpaid delivery.

MINERAL EQUIPMENT CO.

HAMPDEN ROAD, SOMERS, CONN.

TUMBLE POLISHED GEMSTONES

From the world over

We have what we believe to be the largest selection of the finest polished baroque available. We also carry a large stock of preforms.

DEALERS—Write for wholesale prices from our new price list.

"Satisfaction or money back guarantee."

When in Southern California visit our retail store and largest gemstone rock yard in the West.

NEW STORE HOURS: Week Days 8 A.M. to 6 P.M.—Saturdays 8 A.M. to 5 P.M.

San Fernando Valley Gem Co.

5905 KESTER AVENUE



VAN NUYS, CALIFORNIA

FINE MINERAL SPECIMENS

—GEMSTONES—

SUPPLIES — Books, Fluorescent lamps and minerals, Riker mounts, Microscopes, Diamond saw blades, Lapidary Equipment, Hardness Pencils, etc. **Catalog 10c**

V. D. HILL

Complete Gem and Mineral Establishment
5450-C Portland Rd. Salem, Oregon

SLABS GALORE

IDENTIFIED ASSORTMENT

#1 Agates 25 square inches for \$6.50. #2 Agate Jasper, Wood, Dinosaur Bone and others. 10 square inches \$2.00. Have you seen Panama Canal Agate? Surprise in store in each. Please add postage and tax.

CRAFT'S

315 West Havens Street, Kokomo, Indiana.

**BUY AND USE A GOOD
MINERAL BOOK**

For Gem Stones

For Minerals

Visit or Write

JOHN M. WISE

For Supplies

For Findings

403 North Charles Street

Baltimore 1, Maryland

For Mountings

For Fine Jewelry

Transform your ROUGH into SPARKLING JEWELS!

That's what our wholesale faceting service will do for you.

We will facet for you one or a thousand stones in our shop in Idar-Oberstein. Enjoy the full beauty of your rough faceting material and receive finest cutting by master craftsmen at moderate cost.

Send us your rough material with cutting instructions to-day.

ERNEST W. BEISSINGER

Importer & Cutter of Precious Stones

402 Clark Bldg.

Pittsburgh 22, Pa.

Wholesale & Retail MONTANA AGATES

Select - large 2 to 4 lbs.	\$3.00 lb.
Good average agates	1.50 "
Good small agates .....	.50 "
Turritella Agate .....	.50 "
Algae " .....	.40 "
Snowflake obsidian .....	.50 "
Oolite - Death Valley - nice big eyes	1.00 "
Jackson Hole Onyx .....	.50 "
Lee opalite, Utah	1.50 "
Eden Valley nice limbs round, any size	1.50 "
Cane or Bambo, whatever you want to call it This is the finest in all woods @ \$1.00 per stick sample or	5.00 "
Palm woods .....	.50 "
Red jaspers, gem quality .....	.75 "
Red Desert small facet quartz x's, makes fine jewelry pieces from 1 oz. to 200 lbs.	1.00 "
Fossil fish, small - Kemmerer .....	.50 "
Fossil fish, Farson hardrock 3" to 4"	\$1.50 to \$3.00 ea.

Write us for Jade prices.

Collectors write us for prices on special items. Postage must be sent on all orders. Excise tax also on Jades.

Highland Park & Covington Dealers.

Moved to 706 Dewar across the street from the Sinclair Service Station.

TYNSKY'S ROCK SERVICE

706 Dewar Rock Springs, Wyo.

Phone: EM. 2-6021



**Make Collecting
Rocks - Minerals
Your Hobby**

MUSEUM AND COLLECTORS SUPPLY

P.O. Box 1188, Ardmore, Oklahoma
Domestic & Foreign

Mineral Specimens	Highland Park
Cutting Materials	Distributors
Lapidary Supplies,	Fine Cut Gem Stones
Books	Display Cases & Cabinets

**Everything
For The Collector & Craftsman!
Free Lists & Brochures**

**Advertise in
Rocks and Minerals**

TOP QUALITY TUMBLED GEMS SINCE 1953

Wholesale by the lb. Write for list.
RETAIL SHOP

Sterling Silver sheet, wire, solder, and tools. Mountings, findings, cutting material, minerals and equipment. Write for Catalog.

COVINGTON LAPIDARY EQUIPMENT

H. & C. GREEN

812 No. Prairie Ave.
Hawthorne, Calif.



near corner 116th St. 9:00 to 6:00 daily
except Sunday

Earth Science

Brings you noteworthy articles
and notes about

Mineral and Fossil Collecting, Gem
Cutting, Jewelry Making, Geology,
Meteoritics, and the Affairs of the
Clubs and Federations.

Published Bimonthly

Subscriptions, \$2 a year for six issues

Sample copies, 35c each

Official Magazine of the
Midwest Federation of Mineralogical
and Geological Societies

**THE
EARTH SCIENCE PUBLISHING CO., INC.**

P.O. Box 1357-RM

Chicago 90, Ill.

Na_2SO_4 $PbSO_4$ FeS SiO_2 Na KCl CaF_2 $CaCO_3$ Fe_2SiO_4 KC

- MINERAL SPECIMENS - MICROSCOPES
- COLLECTING EQUIPMENT & SUPPLIES
- BOOKS
- CATALOG 25¢

SCOTT WILLIAMS
Mineral Company, INC.

440 N. SCOTTSDALE ROAD • SCOTTSDALE, ARIZONA

Opal Jewelry

For Those Who Desire Something Better
Beautiful fire Opal Earrings with the opal
embedded in pure gold in 15. M.M. round,
dangle type, either screw or for pierced ears,
state which type desired.

Australian Opal In All Its Glory

Handmade — no other dealer can obtain
them or the high quality opal used in their
makeup. They really command that second
look wherever worn — Price \$5.00 per pair
Ladies' 3-unit pendants or bracelet — \$7.50

And for the Gentleman

The same idea as above in Cufflinks
\$5.00

Tieclasp or Bolo tie — \$3.00

Good Quality Rough opal
\$10.00 per oz.

Satisfaction guaranteed or full refund

All goods sent Airmail Postpaid

Kurth's Jewelry

HENDRICKS, MINN.

NOTICE

R & M A MEMBERS

Help yourself to more pleasure and
enjoyment.

Build up our recognition and reputa-
tion by displaying our

OFFICIAL EMBLEM

Attractive cloth emblems embroidered
with gray and gold on white twill
background. Washable colors.

75¢ each

Send check or money order to

DON PRESHER

BOX 146, MONTROSE, N. Y.

SPRUCE UP

YOUR COLLECTION

with CANADIAN COLOR

LAVENDER Anhydrite, Ontario 1x1" 50¢

1x2" \$1.50 2x3" \$3.00

ROYAL BLUE SODALITE, Ontario

1x2" 75¢ \$2.50 lb.

OLIVE Green Picrolite, columnar, Quebec.

Uncommon variety of serpentine.

1/2x1/2x5" \$1.00 1x1x2" 1/2x1/2x2" 50¢

1/2x1/2x10" \$2.50 1x1x2" \$2.50

1x2x10" \$7.50

BLUE to GREEN to BRONZE "schiller" colors

in LABRADORITE, Labrador.

1x1" 75¢ 1x2" \$1.50 2x2" \$2.50

EMERALD GREEN Amazonite, Quebec.

1x1" 50¢ 2x2" \$1.50

LIGHT GREEN Amazonite, Ontario.

1x1 25¢ 2x2" 75¢

*** Canadian Fluorescents ***

World-Famous WERNERITE, Quebec.

BRILLIANT YELLOW, long wave uv.

1x1 50¢ \$2.50 lb.

Delicately colored HACKMANITE, Ontario.

PINK ORANGE, long wave uv.

1x1 50¢ \$2.50 lb.

WE DON'T JUST SELL SPECIMENS, WE SELL

THOSE CABINET SHOW PIECES.

Send for free price list, cutting materials and
specimens. Please add extra for postage and
insurance. Send U.S. or Canadian check or
money order to

Ottawa Valley Gem Shop

Dept. RM, 424 Churchill Ave.

Ottawa 3, Canada

HERE AT LAST!

What every member of Rocks and Min-
erals Association has been waiting for—

A 3 3/4"x3 3/4" all-weather Scotchlite

decal of the Rocks and Minerals

Association official emblem.

Identify yourself with the world's out-
standing earth sciences organization.

For outside mounting on car bumpers,
hardhats, glass, metal, plastic, luggage
or on any smooth clean surface.

Send 50¢ with your name and address

To

L. J. DUERSMITH

Accomac Rd.

R.D. 1

Wrightsville, Penna.



WHERE TO GET IT

ALASKA NUGGETS

ALASKAN NUGGETS—Selected, Gold, Platinum, Copper; One Dollar each and up Postpaid. Specimens over Ten Dollars plus Certified Mail or Registration Fee. Definite sources given. Money refunded if you are not pleased.

FRANK H. WASKEY Oakville, Washington

FLUORESCENCE

Fluorescent House, Beach Place, Branford, Conn. Largest selection of fluorescent minerals and accessories, lamps, etc., in the East. Visit us or send dime for catalog.

MAGAZINES

Rocks and Minerals, Box 29, Peekskill, N. Y. America's oldest and largest magazine devoted to rocks and minerals. \$3.00 per year, sample copy 60c.

MICHIGAN NUGGETS

HALF BREEDS & SILVERS—Lode Silver Nuggets, and Silver Nuggets imbedded by Nature in High Grade Native Lode Copper. These now rare specimens were produced in quantity during the heyday of the fabulous Copper mines of the Keweenaw Peninsula, Michigan. Silvers, Two Dollars to Five Dollars. "Half Breeds", Two Dollars to Twenty Dollars Satisfaction guaranteed.

FRANK H. WASKEY Oakville, Washington

ULTRA VIOLET EQUIPMENT

MINERAL EQUIPMENT CO. — the leading new line of ultraviolet equipment for museum, laboratory, Prospector, and mineral collector. Hampden Rd., Somers, Conn.

ULTRA VIOLET LAMPS

Ultra-Violet Products, Inc., San Gabriel, Calif. Manufacturer of the world-renown MINERALIGHT and BLAK-RAY ultra-violet lamps — from \$14.75.

Ultraviolet Lamps From \$14.50

Nine (9) custom-built, compact, original, superior lamp models available. Also equipment, accessories. Free brochures. **RADIANT**

ULTRA VIOLET PRODUCTS, Manufacturers,
Cambria Heights 11, N. Y.

ULTRA VIOLET SUPPLIES

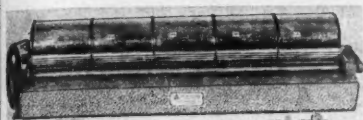
Ultraviolet lamp filters, tubes and electrical parts for replacement or, "to build your very own". Latest accessories for portable use. Write Radiant Ultra Violet Products, Parts Division, Cambria Heights 11, N. Y.

Advertise in Rocks and Minerals

R&MA MEMBERSHIP

Subscription for **Rocks and Minerals** entitles you to membership in the Rocks and Minerals Association. See R&MA Notes and News in this issue.

TUMBLELAP Five Steps To Brilliant Stones



Make beautiful ear rings, tie clips, bracelets, baroque pins from beach pebbles, slabs, crystals. Highly polished stones are easy with a TUMBLELAP.

Machine furnished with five one quart tumbling cans plainly numbered and charged with polishing pebbles and grinding abrasive for the **five steps of polishing.**

Tumbling speed easily varied from 14 to 32 RPM. Simple to operate. Instructions included for maximum polish. Results are truly amazing.

Complete equipment. Ruggedly built. Nothing more to buy. Economical 25 watt fan cooled motor. Total tumbling capacity about 12 lbs.

Write for full information and receive a beautifully polished stone **FREE.**

PRICE \$50.00 F.O.B. SHARON
shipping wt. 32 lbs.

HEATHCOTE MFG. CO.
Sharon, Mass.

ROUGH TIGEREYE FOR FINE GEMS

Good golden, with little or no brown and minimum of matrix attached. \$1.00 per lb. Gem blue or bi-color. Fine material, \$2.00 per lb. Please add 10% F.T. and sufficient postage.

Calif. residents add sales tax.

VALLEY ART SHOPPE

21108 Devonshire St., Chatsworth, Calif.
Diamond 8-4607

NUTMEG ROCK SHOP

Lapidary Equipment and Minerals



By appointment
call Manchester 646W
South Dorset, Vermont

Advertise in Rocks and Minerals

BEAUTIFUL TAMPA BAY AGATIZED CORAL

Grade #1 \$2.00 lb. The very best
#2 \$1.50 lb. smaller fingers and heads
#3 .75 lb. thinner walls and broken pieces

3 grades mixed \$1.00 lb. 5 lb. minimum.
Tumbled coral \$6.00 lb.

Polished pairs of beautiful coral geodes from \$2.50 up to \$50.00. Smaller pairs \$1.00

Send \$5.00 for 2 polished halves and 6 pieces of tumbled coral.

All postpaid. Guaranteed satisfaction.

JACK'S ROCK SHOP

P. O. Box 8373, Tampa 4, Florida

Display your Micromounts

UNDER THESE

1 1/8" by 2 1/8" Rectangular Magnifiers



Sensational value! Effectiveness not harmed by slight imperfections. Recommended also for reading very fine print. Artists, students, coin and stamp collectors will also find them ideal. Keep them handy. Use them for gifts. Made in U.S.A.

Our price 3 for \$1.00 p. p
Scientific & Lab Apparatus

HARRY ROSS

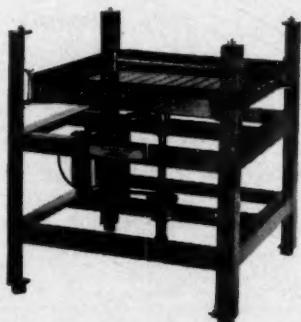
59 thru 61 Reade St.,
N. Y. 7, N. Y.

Buy and Use a Good Mineral Book

VI-BRO-LAP

**THE NEW
COMBINATION LAPPING and POLISHING Machine**
Two SIZES — 18" Hobbyist, 24" Shop size

For finishing material 3" - 18" in diameter and up to 100 lbs.



Vi - Bro - Lap

FAST & ECONOMICAL

Finish up to 300 inches in less than 24 hours machine time while you spend less than two hours. Cost per load is about 75c for grit and polish. (Large Size)

QUIET, CLEAN

No noisy grinding, no dust, no pulling.

Both Models now equipped with new long lasting belting material polishing pad.

**SEE YOUR DEALER OR
WRITE US FOR BROCHURE**

**1401 Fruitvale Blvd.
Yakima, Washington**

Lapis Lazuli locality at Ovalle, Chile.
pp. 387-393, 7 illus. Sept. - Oct. 1958,
R. & M. - price 60 cents.

ROCKS and MINERALS

Box 29

Peekskill, N. Y.

CRAFT STUDENTS LEAGUE Y.W.C.A.

840 8th Av.
at 51st N. Y.
Circle 6-3700

Lapidary Classes

Cut and polish your own stones.
Also learn to mount and set
them in Jewelry Classes.

Afternoons & Evenings. For men
and women. Catalog R.

Convenient in midtown N. Y.

SOUTHWEST DEVELOPERS

Box 881

Abilene, Tex.

Tel. OR 4-4690

**Mineral Specimens
Gem Rough
Crystals**

"Covington Lapidary
Equipment Dealer"

BAROQUES AND CABOCHONS

WHOLESALE ONLY
MANUFACTURERS and DEALERS
WRITE FOR OUR PRICE LIST
VISITING DEALERS ARE CORDIALLY
WELCOME

**TREASURE
CRAFTS**

209 9th STREET
PHONE 643
P.O. BOX 847-R
RAMONA, CALIF.

Specimens for the collector — World-wide localities.
Distributor of Mineralights and Ultra Violet Equipment.
B & I Lapidary, Detectron Geiger Counters, Geological Hammers.

MONTH'S SPECIAL

Tourmaline—Good shaped xls, not thin. Brazilian. Medium green. $1\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " long.
\$1.00, \$1.50, \$2.50, \$3.50

Sapphire—Terminated crystals from Ceylon. Mostly yellow with some having colored patches.
 $\frac{1}{2}$ to $\frac{3}{4}$ ". \$1.00, \$2.00, \$3.00, depending on quality. From a 40-year-old lot.
Catalogue available on or about Jan. 20th, 25¢ in coin, refunded on first order.

Walker's Minerals

799 Lexington Avenue

Near 62nd St.

New York 21, N. Y.

Phone TE. 8-1444

ON THE BOARDWALK

A complete Rock Shop for your needs.

Covington Lapidary Equipment

BOARDWALK ROCK & SHELL SHOP

(Near Convention Hall)

2205 Boardwalk

Atlantic City, N. J.

"JUDS" ROCK SHOP

39-48th Street

Gulfport, Miss.

Editor's note—Jud Locke, prop. of Jud's Rock Shop, is on the sick list having suffered a severe heart attack. Please bear with him.

GEM MAKER \$36⁵⁰ and GEM FACETOR \$15⁰⁰



Amateurs or professionals . . . hobbyists or jewelers . . . ALL will find new enjoyment in this different Gem Maker. All necessary lapidary equipment is furnished, including a super-charged diamond blade for sawing and all wheels for grinding, shaping and polishing. The complete equipment as shown, less motor and belt, ONLY \$36.50 F.O.B. Burlington, Wis. Write today for information and literature on this 6" Gem Maker. Prices on other lapidary supplies upon request.

\$36⁵⁰

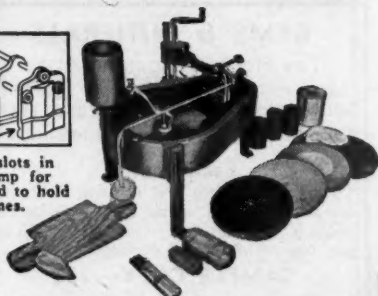
The Gem Faceter

\$15.00 F.O.B. factory

Gem Makers or any horizontal lap. The B & I Gem Faceter can be used with the B & I 6" or 10" Many new features incorporated.



V slots in clamp for hard to hold stones.



The 10" B & I Gem Maker shown at left, has all the features you have been looking for: 10" Diamond Saw, 10" Cast Iron Lap Wheel, Silicon Carbide Grinding Wheel, Sander, Polishing Wheel. Includes compounds and motor mount. Complete, less motor, only \$64.50, F.O.B. factory.

Send for Descriptive Literature NOW!

B & I MFG. CO.
BURLINGTON, WIS.

GEM CUTTING

a LAPIDARY'S MANUAL

by JOHN SINKANKAS



Here is a big, new, practical book on every phase of the ancient art of working and cutting gems — an authoritative handbook for jewelers, lapidaries, mineralogists and home craftsmen, that opens new avenues for profitable, fascinating work.

Written by an expert, this practical manual on finding, washing and cutting precious and semi-precious stones tells you exactly:

- How to prospect your own gem material and find semi-precious and precious stones right in your own neighborhood.
- How to prepare stones for cutting, how to shape them and facet them, with a truly professional finish.
- How to select, use and care for the tools and equipment.
- How to fashion the finished stones into valuable articles of ornament and jewelry.
- How and where to buy supplies, tools, raw and finished stones and settings.

Illustrated, 397 pages

MAIL THIS COUPON

☐ Rocks and Minerals
Box 29
Peekskill, N. Y.

☐ Please send me a copy of "Gem Cutting" by John Sinkankas. Enclosed is my check or money order for \$8.95 in full payment.

☐ Name

☐ Address

☐ City Zone .. State..

NEW FIFTH EDITION

LEARN

GEM TUMBLING

& Baroque Jewelry Making

By the Victors

*Authentic and Recognized Book
of Complete Instructions*

NEW IDEAS and complete information about tumbling. Tells how and why. — Belt lengths and pulley sizes, speeds.

A MUST FOR THE TUMBLER

Price Only \$2.00

Postpaid in U.S. or Canada

Washington residents add 8c sales tax

AT YOUR DEALERS

or order from

VICTOR AGATE SHOP

South 1709 Cedar Street

Spokane 41, Washington

FINE MINERAL SPECIMENS

Books, Gem Materials, Jewelry. Authorized Covington Equipment dealer, Highland Park Equipment.

JOSEPH P. STACHURA

1766 House, Rt. 146

Quaker Highway

Uxbridge, Mass.

Phone Crestview 8-3346

opposite Quaker Plaza Motel

OPEN TUES. - SUN.

CLOSED MONDAYS

GEMS & MINERALS

The Hobby Magazine About

**GEMS GEM CUTTING JEWELRY
MINERALS FOSSILS FIELD TRIPS**

Over 90 pages of new hobby information

Each Month

Over 19,000 gem and mineral hobbyists already use and enjoy **GEMS & MINERALS**. You can, too — for **ONLY \$3.00** per year.

SAMPLE COPY—25¢

P. O. Box 687F

Mentone, Calif.

Pine Tree Gem and Mineral Club

4th ANNUAL

ROCKHOUND ROUND-UP

July 23rd and 24th, 1960

AT

Swift River District School

ON

Route 17 out of Mexico, Maine

For more information contact
Freda Thomas, Corresp. Sec.

**Pine Tree Gem
and Mineral Club**
Roxbury, Maine

MINERALS from Spain

Juan Montal

Plaza Sagrado Corazon 1

Vilafranca del Panades

Spain

The better classic

and New Minerals

from Spain

Inquiries Solicited

NEW

KIT
LOW PRICE

ONLY
\$19.75



#2-4LS

DO IT YOURSELF BLACKLIGHT KIT (ULTRAVIOLET)

LONG & SHORT WAVE

- ALL Metal Housing
- Small and Compact (5 x 8 1/4 x 2)
- Light Weight (3 lbs.)
- 110-120V, 60 Cycle AC Operation
- 90 minute Assembling Time
- Wiring Diagram & Complete step-by-step Instructions Included
- Adaptable to Battery Operation

BATTERY PACK AVAILABLE
Complete with batteries
& shoulder strap.

**Weight 5 lbs. \$11.50, add \$1.00
for handling, postage, insurance.**

MAIL THIS COUPON TODAY

ELK ELECTRIC MANUFACTURING CO.	
Manufacturers of Black Light Since 1930	
P.O. Box 216, Franklin Square, L. I., N. Y.	
Enclosed find \$..... for Black	
Light Kits at \$19.75 plus 75c for handling,	
postage, insurance.	
Name.....	
Street.....	
City.....	State.....

SHIPLEY'S SPECIALS

Tumbled Arizona pyrope garnets — \$1.00 per oz.

Tumbled Mexican ojoitos agate — \$5.00 per lb.

Hard, blue turquoise nodules from 1/4 in. to 1 1/4 in., 6 in hardness, \$4.50 per oz.

Beautiful hand chipped obsidian arrowheads, matching pair for eardrops — \$1.50 a pair. Larger matching arrowhead for pendant \$1.00 each.

Send for literature on world's best lamp for the lapidary. Write for free lists on cutting materials, books and equipment.

Shipley's Mineral House

Gem Village

Bayfield 11, Colorado

Lottie Shipley Rohde

Byron H. Rohde

Jackson Hole Rock Shop

ROUGH MATERIALS

Eden Valley wood	.....\$ .50 lb.
Algae	..... .50 lb.
Turritella w/shells	..... .50 lb.
Blue dendrite agate	..... 1.00 lb.
Wiggin Fork wood	..... .75 lb.
Snow flake obsidian	..... .65 lb.

Tumbled Polished Baroques

Rose quartz

Apache tears

Wiggin Fork wood

Blue dendrite agate

Turritella agate

Algae

Lace agate

Chalcedony

or mixed assortment \$3.50 lb.

Screened to three sizes — small, medium, large.

State preference. Send postage please.

Jackson Hole Rock Shop

Box 301

Jackson, Wyo.

MINERAL COLLECTORS

Enjoy a mineral collecting vacation in Maine's famous Pegmatite region. Rent a housekeeping cottage at Papoose Pond, Waterford, Maine, and visit more than 100 collecting localities in the Oxford County area.

Cottages with all facilities are located on wide sandy beach among tall pines.

Tenting area with full facilities also available.

Write for illustrated folders.



Papoose Pond Cottage Colony and Camping Area
Box 106, Norway, Maine

BLUE JADE

Blue Burmese Jadeite Cabochons, oval, 18x13 mm., \$12.50 each. White, \$2.50 each.

JADE

Burmese Jadeite; good quality. Set of 5 cabochons, oval, 18x13 mm., \$10.00 set. **Special Quality**, \$20.00. These sets consist of one stone each in black, green, mauve, red, and yellow jade.

Sets of above colors in 25x18 mm., ovals, good quality, \$15.00 set; **Special Quality**, \$30.00 set.

CABOCHONS

Selected aventurine, black onyx, bloodstone, cobra agate, goldstone, jasper, obsidian (golden sheen), quartz crystal, rhodonite, rose quartz, blue tiger-eye, go'den tiger-eye, red tiger-eye, and zebra agate, 18x13 mm. ovals, 60c each; 25x18 mm., 95c each.

Faceted and cabochon gems of all types in stock.

Please add 10% F. E. T. to taxable items. Free 1960 Gem Catalog sent on request.

10-Day Approval Shipments Sent. Satisfaction Absolutely Guaranteed.

International Import Company

128 North Parkwood Drive
Forest Park, Georgia

IMPORTED CUT STONES

We have now a complete line of cut stones in calibrated standard sizes in stock, such as

Lapis Lazuli
Aventurine
Amazonite
Amethyst Quartz
Bloodstone
Blue Chalcedony
Chrysoprase
Amber
Carnolian
Epidote
Goldstone
Honey Onyx
Green Moss Agates

Pink Moss Agates
Labradorite
Rhodochrosite
Rose Quartz
Tigereye
Catseye
Hematite
Striped Agates
Fancy Agates
Malachite
Rutilated Quartz
etc. etc.
Jade (Burma)

Black Star Sapphires
Ceylon Blue Sapphires
Faceted fine blue Sapphires
Faceted fine Rubies
Faceted fine Emeralds
Australian Opals
Australian Opal doublets
Synthetic Stones:

a complete line of synthetics such as
Aquamarine, Alexandrite, Amethyst, Kun-
zite, Golden Topaz, Blue Sapphires,
White Spinel, Morganite, Peridot, Emer-
ald, Tourmaline, Ruby, etc., etc.

All above are in calibrated sizes in stock, also in heart shapes, as well as in fancy cuts for earrings, pendants etc.

We carry a very fine and extensive selection of JADE CARVINGS in stock, suitable for earrings, charms, pendants, cufflinks etc.

Since it is impossible to quote prices for these many items in an advertisement, we request you to ask for our pricelist. **DEALERS USUAL SPECIAL DISCOUNTS!**

FRANCIS HOOVER

11526 BURBANK BLVD.

NORTH HOLLYWOOD, CALIF.



Phone: POlar 1-1505

SPECIAL PRICE OFFERING GENUINE STAR RUBIES

From INDIA.

Each stone is of excellent cutting with perfectly centered stars and very good texture, being offered at a price well below the market. We are direct importers of all types of cut stones from commercial quality to the finest of quality at competitive prices.

STONES OF BEST GRADE sharp star, fine texture, from 3 to 15 cts. ea. @ \$3.00 per ct.

Stones of just a little less red color but with very sharp stars and texture, from 3 to 20 cts. ea. @ \$2.00 to \$2.50 per ct.

HERE IS A REAL BUY! 1 stones of excellent cutting, good stars and very good texture, from 5 to 15 cts. ea. from \$1.00 to \$1.25 ct. If you buy in lots of 40 cts. lot price \$30.00.

Take advantage of this low price as certainly the price will go up. Note: At this price, it doesn't pay to cut it from the rough, you can buy them cheaper ready cut and you see what you are getting, whereas with the rough, you never quite know how it will turn out.

ADD 10% FEDERAL TAX.

R. C. ROMANELLA

22 West 48th St.
New York 36, N. Y.

THE AMATEUR LAPIDARY

announces his arrival in Australia

SPECIAL OFFER

One full pound of fine colorful

OPAL

prepaid for Only

\$16.00

Every piece will cut.

Every piece has color

Money back if not pleased.

For the first time in years you are now offered fine cutting opal at a reasonable price.

No big build-up - No Bull - Just honest value. Please send U.S. Money Order or personal check.

To: Major George W. Owens

444 the Horsley Drive
Fairfield N.S.W. Australia

Beautiful Lake Superior Agate

Tumbling Size 1/2" to 1"	\$1.25 per lb.
Nice Working Size 1" to 2"	\$2.00 per lb.
Specimen Size, 6 ounces up to 14 ounces each	\$1.00 per ounce

All sold subject to 10 day approval-postpaid USA.

SOUTHERN ILLINOIS FLUORITE SPECIMENS

Write for descriptions of each—Price range \$1.00, \$2.50, \$5.00 & \$7.50 each
All postpaid USA—State price bracket you wish described.

OTHER SPECIMENS AVAILABLE IN LIMITED QUANTITIES—

Smoky Quartz Crystals together with pseudomorphs of "limonite after siderite" on pink microcline feldspar.

Nice green Amazonstone crystal groups and single terminated xyls.

Jade (nephrite) slabs, 3/8" or better, in olive green, dark green and very dark green (finishes with high luster and appears black)—\$1.00 per square inch postpaid.

KEROSENE ODOR NEUTRALIZER—guaranteed to eliminate -not cover up- all kerosene odor. Saw with confidence—use kerosene with BOB'S KEROSENE ODOR NEUTRALIZER. Use only 1 oz. (per 8 gal.) kerosene
Only \$3.60 per four oz. bottle postpaid. Sold only on a money back guarantee.

BOB'S AGATE SHOP

Post Office Box 191,

120 West Main, Mt. Sterling, Ill.

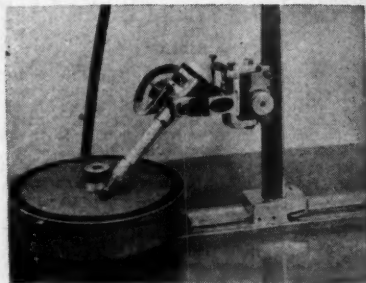
IT'S FUN TO FACET WITH A MASTER

and you'll never know how easy and fascinating it is to cut sparkling, faceted gems until you've worked with **M.D.R.'s MASTER FACET HEAD**—the head that is so convenient and easy to use that amateurs the world over have acclaimed it—so thoughtfully and thoroughly engineered that professionals depend on its rugged accuracy for year in, year out service. It's so light and responsive to your slightest touch and you have complete control of all adjustments—adjustments that stay put, once you have them set. Hundreds in use throughout the world.

IT'S THE BEST

"**BOOK OF GEM CUTS**," Vol. #1, is included with each MASTER FACET unit. The detailed instructions and drawings for many cuts, both standard and unusual, will get you started properly and enhance your cutting pleasure for years to come. Volume #2 has detailed instructions and drawings for more unusual cuts Price, **\$2.50 ea.**

Everything for the faceter—write for our complete list of facet units and accessories.



MASTER FACET HEAD, No. 8824

(as shown) complete with master lap, arbor and splash pan **\$195.66**

F.O.B. Los Angeles Sales tax in Calif.
M.D.R. IS YOUR MOST COMPLETE FACETING SUPPLY HOUSE—MASTER FACET HEADS and complete outfits—pitch, lucite, wood, copper, lead, typemetal, tin, alloyed and special LAPS-DIAMOND LAPS-DIAMOND Powders & other abrasives-POLISHES-DOPS-SPECIAL ACCESSORIES & SUPPLIES not available elsewhere.

M.D.R. MANUFACTURING CO., INC.

4853-R West Jefferson Blvd.

Los Angeles 16, Calif.

Phone: REpublic 2-7889

CRATER OF DIAMONDS

MURFREESBORO, ARKANSAS

The only genuine diamond Crater in North America. Open year 'round, daily and Sunday.

Any diamond up to 5 carats absolutely free, over 5 carats royalty of 25%, rough value paid by finder. Amethyst, Garnets, Peridots, Agate and Chalcedony also found. Adults \$1.50.

A sack of genuine disintegrated Kimberlite from Crater mailed anywhere in U.S., \$1.50 P.P. Add to your collection — some sacks guaranteed to contain diamonds. Instructions for searching included.

The searching area composed of approximately 15 acres is all disintegrated Kimberlite in place, which has been, through tests, proven to be diamond-bearing. By ploughing, new surfaces are turned up every 30 days, hundreds of diamonds are found here. A Rockhound paradise.

We now have replicas of the "Star of Arkansas" 15.33 carat diamond found at the Crater of Diamonds March 4, 1956. These are cut of genuine Arkansas Quartz in the exact size of the finished "Star of Arkansas." Every Rockhound should have one in his collection. Price \$3.95 plus postage. Dealers write for prices. Each one boxed and stamped in gold.

Free folder on request. Special rates to clubs and other organizations sent on request.

THE PREPARATION OF MICRO MOUNTS

By

L. C. WILLS, M.D.

Philadelphia, Pa.

27 pages

The first and most comprehensive article on

Micro mounting ever published.

Reprinted from the Dec. 1931 issue of *Rocks and Minerals*

Price 50 cents

Rocks and Minerals

Box 29

Peekskill, N. Y.

MICRO MINERALS MOUNTS

by Jay T. Fox., pp. 399-406, 5 illus.
Dec. 1940, R. & M. - price 25 cents.

ROCKS and MINERALS

Box 29

Peekskill, N. Y.

25th ANNIVERSARY NUMBER

ROCKS and MINERALS

Sept.-Oct. 1951 (Whole No. 224)

128 pages — 60c

ROCKS and MINERALS

Box 29

Peekskill, N. Y.

MAINE FLUORESCENT PEGMATITE

NEW FIND

Pegmatite specimens from an old mine recently reopened were discovered to have an interesting short wave and occasional long wave fluorescence this summer.

Send for 3 different colored fluorescent specimens approx. 1" \$1.00 Pp.

Larger specimens \$1.50 first pound, \$1.00 additional pounds postpaid. Wholesale prices on request.

WINTHROP MINERAL SHOP

WINTHROP, MAINE

CONN. GEM & MINERAL HOBBY SHOP

Offers slabs cut 1/8" thick for good cabochons. Blue and green burnite, tiger eye, all color, as well as labradorite, rhodonites, agates, jaspers, dinosaur bones, etc.

ALSO

Mineral lights, fluorescent minerals, B & I gem-makers, grits, polishing compounds. We teach gemcutting and have tumbled stones, findings, tumbling machines.

We slab your stones or tumble, etc.

CONN. GEM & MINERAL HOBBY SHOP

P. O. Box 1794 Bridgeport, Conn.
Phone: EDison 4-8608

CUTTING MATERIAL

Lace Agate	Mexico
Amethystine	Colorado
Turritella	Wyoming
Bloodstone	India
Nephrite Jade	Wyoming
Gold Sheen Obsidian,	Mexico

MINERAL SPECIMENS

Azurite	Mexico
Barite Roses	Oklahoma
Selenite Roses	Texas
Pyrite	Colorado & Montana
Wulfenite	Arizona & Mexico

AUTHORIZED FRANTOM DEALER

THE DOGSLED

2500 Colorado Boulevard
Idaho Springs, Colorado

Higgen's Gems & Minerals

From World-Wide Sources
CRYSTALS, GEMS, MINERALS,
CUTTING MATERIAL, BOOKS.

Price List 10c

5730 SE-R Waymire Street
Milwaukie 22, Oregon

COLOR SLIDES

35mm (2x2) and stereo slides of mineral and crystal specimens, for lectures, instructors and club programs. For sale or rental.

R. PICKENS

610 N. Martin

Waukegan, Ill.

Burminco

New Mineral Catalog No. 12 now available listing around 300 species of minerals from worldwide sources. Also lists SPECIMEN LABELS, SPECIMEN MOUNTS, ULTRA-VIOLET LAMPS, HAND LENSES, SPECIMEN BOXES AND OTHER MINERAL COLLECTOR'S AND STUDENT'S SUPPLIES.

Send 20c for your copy NOW 20c refunded when you order from the catalog.

New Jewelry Mountings and Findings Catalog together with GEM CUTTING MATERIALS list also available. Send 20c for your copy of this fine, large catalog. 20c refunded as soon as you have ordered at least \$4.00 worth of materials.

BURMINCO IS EXPANDING INTO THE GEM AND LAPIDARY FIELD and has been appointed distributor for one of the largest GEM MATERIALS importers in the country. Stocks of fine GEM ROUGH now on hand and new materials will be arriving periodically. Holders of the catalog will be notified frequently.

• • • • •

No Change in Policy on Minerals: We will continue to concentrate on maintaining large stocks of fine minerals for the collector, the student, scientific uses, etc.

Burminco

128 S. Encinitas

Phone ELliott 8-4478

Monrovia, California

Hours: 9 A.M. to 6 P.M. every day except Mondays and Tuesdays.

Open Thursday evenings until 9 P.M.

The Brauns

of

Ridgefield, Connecticut

SLABS

Wyoming Jade
Arizona Gold
Horse Canyon Agate
Pink & Gray Crazy Lace
Sheen Obsidian
Free List

Mineral Specimens

Thumbnaill to Cabinet Size

Hand Made Silver Jewelry

Custom Made

Pins, Rings, Lariat Ties

High Ridge Avenue

Visitors Welcome

PAINTON'S ROCKERY

ORION on U.S. 60-W, FAIRVIEW, OKLA.

Dolomite Pyramids. Hour Glass xls. Slobs.
Rough. Montana & Mexican Agate.

—Send for free price list.—

Visit us at our booth at the Rocky Mtn.
Fed. Show, Albuquerque, N.M. June 17, 18
& 19th.

TOM ROBERTS ROCK SHOP

1006 S. Michigan Ave.

Chicago 5, Ill.

Webash 2-7085

Change in Hours:

Monday thru Saturday
10:00 A.M. to 5:30 P.M.

GEORGE SASSEN MANUFACTURING JEWELERS

350 W. 31st ST., N. Y. C.

Manufacturers of inexpensive Plated and
Sterling Mountings that are—

- Easy to use
- Easy to sell
- Tarnishproof
- Engineered for quality and comfort

Catalogs available:

- #10 Baroque Mountings 50
- #13 Lapidary Mountings 50
- #14 Lapidary Mountings 1.00
- #17 Full of original surprises—coming soon.
(When available a free copy will be
sent to each of our customers.)

Your Business Will Go . . .

When you use Sassen's huge quality line of
Costume Jewelry for the Lapidary.

UP



PRECISION BELT SANDERS



FAST 3 to 5 times faster than disc or drum

PRECISE fingertip tension and tracking controls

RUGGED all metal construction

TROUBLE FREE double sealed ball bearings

Sands concave and convex as well as flat surfaces.

Change 60" long by 3" wide belts in seconds.

Available either wet or dry, as double belt or combination units.

Send for your **FREE CATALOG** and **PRICE LIST** today

Let your work reflect your ability with

PROFESSIONAL QUALITY LAPIDARY EQUIPMENT

NELSON MACHINE WORKS

9111 N. E. HALSEY ST.
PORTLAND 20, OREGON



Advanced Collectors

and Museums buy from us regularly. Choice mineral specimens and crystals. New items offered in each monthly list.

Write for current copy.

Plummer's Minerals

4720 Point Loma Ave., San Diego 7, Calif.

MINERAL SPECIMENS

SELECT SINGLES & BOXED SETS

U.S. and Foreign

U.V. Lamps, Geology Hammers, Books, Microscopes, Accessories, Gifts.

Inquiries — Invited

Visitors always welcome

Open Every Evening

All Day On Saturday — and by Appointment.

GLOBE MINERALS

163-03, Depot Road

Flushing, New York 58, N.Y.

Opposite B'Way. station L.I.R.R.

Near Northern Blvd & 162nd Street

MICRO-MINERALS

Select foreign and domestic specimens packed in plastic micro-mount boxes. Free List on Request

CANADAY MICROMINERAL COMPANY

P.O. Box 11283

Phoenix, Arizona

PONDEROSA GEMS

Faceting orchard quartz \$4.00 per lb. Cabochon grade \$1.75 lb. Burley Obsidian \$1.30 lb. Minimum order 5 lbs.

Ponderosa Gem Mines

625 Walnut St.

Red Bluff, Calif.

AT THIS LOW PRICE FOR THE FIRST TIME

IDEAL FOR FLUORESCENT ROCK COLLECTORS!

THE AMAZING Tiger Eye Twin

**LONG AND SHORT WAVE ULTRA-VIOLET
UNIT WITH THESE AMAZING FEATURES:**

**ONLY
\$29.75**



Tiger Eye Twin
model 25-36
shown with
Battery Case
model BA-245

- Most powerful for the price . . . anywhere
- Based on the latest engineering principles
- Combines long and short wave in one unit
- Rugged all metal housing
- Extra large filters
- Comes set up . . . ready to use
- Easy access for replacing tubes
- Completely portable for field prospecting (with BA-245 case)
- Operates on house current or batteries
- Special circuitry for battery conservation
- Light weight . . . only 1 lb. 15 ozs.
- Compact . . . only 5 1/2" x 2" x 8 1/2"
- Completely guaranteed
- **FREE with each unit: Six identified specimens of long and short wave fluorescent minerals.**

The TIGER EYE TWIN, when equipped with the Battery Adapter Case model BA-245 (optional-\$5.75) and two 45 volt #202 "B" batteries (optional-\$3.25 each) can be carried right into the field to give you on-the-spot information about the minerals you discover.

Show your fluorescent mineral collection to your friends at home. See the different fluorescent response of many minerals and how they "switch" colors under long wave and short wave ultra-violet.

EXTRA BONUS: Twelve page fact filled booklet, "The Unseen World Around Us", including extensive lists of fluorescent minerals, woods, etc.

Manufactured and guaranteed by:

**BLACK LIGHT
EASTERN
CORPORATION**
Bayside 61, N. Y.

NOT A DO-IT-YOURSELF KIT

**It comes completely assembled . . .
Ready to use!**

Write for more information, or use this handy coupon to order your unit today . . .

BLACK LIGHT EASTERN CORPORATION	
201-04 Northern Boulevard	
Bayside 61, N. Y. Dept. RM 3	
Please rush!	
—Tiger Eye Twin(s) #25-36	@ \$29.75 ea. _____
—Battery Adapter(s) #BA-245	@ 5.75 ea. _____
—45 volt #202 "B" batteries	@ 3.25 ea. _____
(2 required)	
Postage, insurance and handling	TOTAL \$ _____
East of the Mississippi .50—West of the Mississippi \$1.00	
ENCLOSE CHECK OR MONEY ORDER	
Name	
Address	
City	State Zone

Faceted Rare Stones from New Shipment Just Received

Fine Collector's Stones

ANDALUSITES, all finest quality, excellent cutting. "Each stone shows the two color effect". Approx. 5 m/m ea. rounds, ovals, & octs. average over one ct. ea. From \$8.50 to \$10.00 ea. depending on quality. Larger sizes from \$15.00 to \$20.00 ea. Remember all stones are of finest cutting & quality. NO TAX.

Here is a fine collector's item for one who wants the better quality stones! !

FINE YELLOW SPODUMENE "exceptional good yellow color" excellent cutting 16½ x 16 m/m cushion, 22.55 cts. SPECIAL LOW PRICE \$80.00. NO TAX

SPECIAL LOW PRICE GENUINE FACETED FLUORITE, Very dark purple, stones average 15 x 20 m/m, very low price \$15.00 No tax.

RARE FACETED COBALT CALCITES from Spain, pink color, very rare when faceted. approx. 10 m/m round @ \$15.00 No tax.

RARE FACETED PHENAKITES from Colorado, each stone approx. 3 to 4 m/m, excellent cutting—collector's item, from \$3.50 to \$4.50 ea. NO TAX

FACETED DATOLITES from New Jersey, average 3½ m/m ea. @ \$3.75 to \$4.50 ea. NO TAX.

RARE FACETED AMBYGONITES FROM BRAZIL, light yellow color, each stone is of fine quality, very rare collector's items. Over 5 m/m round SPECIAL PRICE \$6.50 ea. NO TAX.

RARE OLIVE GREEN APATITES, from BRAZIL, approx. 5 m/m @ \$8.00 ea. NO TAX

SPECIAL—DIAMOND CUT GENUINE RUBIES

from Siam. Rubies from Siam are of a very unusual purplish—blood red color. Quite rare—finest quality. Stones are of fine diamond type cut and are very brilliant.

2½ m/m rd. brill. @ \$2.50 ea.

3 m/m rd. brill. @ \$3.50 ea.

3½ m/m rd. brill. @ \$6.50 ea.

"Each stone is a GEM"

BLUE SAPPHIRES from MONTANA. Fine cutting. Each stone is a fine yogo blue color. Light and dark blues. Approx. 3 m/m rd. @ \$2.00 to \$2.50 ea. 5 m/m rd. \$3.50 to \$6.00 ea. Larger sizes from \$8.00 to \$15.00 ea.

GENUINE ORANGE GARNETS, Brazil, first grade, approx. 5 m/m @ \$2.00 ea.

FINE IOLITES, Burma, approx. 6 m/m @ \$3.00 to \$6.00 ea.

AQUAMARINES, 8 x 6 m/m oct. @ \$2.00 ea.

FINE COLOR AMETHYST, 6 to 7 m/m rd. @ \$1.00 ea.

ROUND AQUAMARINES, Madagascar, approx. 6 m/m rd. @ \$2.50 ea.

RICH ORANGE-BROWN ZIRCONS, approx. 5 m/m "diamond cut" @ \$1.50 ea.

RICH ORANGE COLOR RIO GRANDE CITRINE, approx. 8 m/m rd. @ \$1.00 ea.

RARE ZINCITE, Franklin, N. J. Special @ \$1.00

BLUE AQUAMARINE, Burma, approx. 6 m/m @ \$3.50 ea.

FINE RUBY-RED SPINELS, approx. 3 to 4 m/m square @ \$1.00, \$2.00 & \$3.50 ea.

GENUINE SELECTED FIRST GRADE GEM CRYSTALS

DIAMOND crystals, Angola @ \$1.50 ea.

RUBY SPINEL crystals, gemmy @ \$1.00 ea.

FINE EMERALD crystals, gemmy @ \$1.00 ea.

SELECTED BI-COLOR TOURMALINE crystals, Calif. @ \$1.00 & \$2.00 ea.

OLIVE GREEN GARNET crystals, Korea @ \$1.00 ea.

ANDALUSITE crystals, gemmy, Brazil \$1.00, \$2.00 & \$3.00

SAPPHIRE crystals, Ceylon @ \$1.00 & \$2.00 ea.

RUBY CRYSTALS, India, excellent forms @ \$1.00 ea.

RUBELLITE TOURMALINE crystals @ \$1.00 ea.

CHRYSOBERYL crystals, Brazil & India @ \$1.00 & \$2.00 ea.

CABOCHON AND FACETING ROUGH

Very fine **BLUE SAPPHIRE**, excellent color, will cut moons and

stars Siam. from 3 to 10 cts. ea. @ 50c to \$1.00 per ct.

FINE PRECIOUS YELLOW TOPAZ from 1 to 3 cts. ea. @ \$1.00 per ct.

IMPERIAL ORANGE COLOR TOPAZ @ \$1.50 ct.

PLEASE ADD 10% federal tax

NEW 1960 PRICE LIST AVAILABLE 25¢ (cost more)

All goods is imported directly and is of selected quality.

R. C. ROMANELLA

IMPORTER OF COMMERCIAL MINERALS

22 WEST 48th STREET

NEW YORK 36, N. Y.



\$5000 In Cash Sales For Every \$1.00 Spent in Advertising

That's the report received recently from Mr. Ross Briggs, Owner, Scioto Stamp Shoppe, Box 547, Portsmouth, Ohio, who has been advertising regularly in the Classified Section of **SCIENCE AND MECHANICS**.

It all started this way. Back in February 1949, Mr. Briggs ran a classified ad in **SCIENCE AND MECHANICS** to test the mechanical field. The results were so startling that Mr. Briggs immediately put **SCIENCE AND MECHANICS** on his regular advertising schedule.

In discussing results, here is what Mr. Briggs says:

"During the past year I spent \$69.50 for classified advertising in **Science and Mechanics**. From these ads I received over 500 requests for my catalog and approval selections. Inquiries from your publication develop into exceptionally good customers. In fact, one client has built his entire U.S. collection from my stock and has spent well over \$500.00 with me. My sales last year passed the \$3,500.00 mark which, for a spare time business, speaks well for the pulling power of **Science and Mechanics**."

Could you ask for better evidence of the pulling power of **SCIENCE AND MECHANICS**? Why not include this powerful advertising medium in your schedule?

"Be Wise, Know Where to Advertise"

SCIENCE AND MECHANICS

The Magazine That Shows You How

Dunham Building - - Chicago 11, Illinois



Get the FACTS!

Don't spend another cent for advertising until you have *all* the facts about **SCIENCE AND MECHANICS**. See how hundreds of advertisers are putting the magic pulling power of **SCIENCE AND MECHANICS** to work for them. Write for **FREE** details—**NOW**.



CURTIS SUPERVISES OUR NEWSSTAND DISTRIBUTION



Another in a Series of Success Stories

ROCKS AND MINERALS

CLASSIFIED ADVERTISEMENTS

WORLD'S BEST WANT AD. MEDIUM FOR MINERALS

Rate 10c per word; minimum 20 words. Remittance must accompany copy in all cases. Advertisers must furnish satisfactory references before their advertisements will be inserted. Forms close the 20th of odd months.

EXCHANGES

WILL SWAP—Professionally made jade, fire opal, agate jewelry or cut stones for good saleable mineral specimens, cutting material, fossils, Indian relics, etc. Please send details to Bob Menser, 2819 North Warner, Tocomo 7, Wash. Your satisfaction is fully guaranteed.

MANY UNCOMMON MINERALS—For exchange with the average collectors and rare species for the advanced. Foreign correspondence invited. Gunnar Bjareby, 147 Worthington St., Boston 15, Mass.

EXCHANGE — Copper arsenates and other rare xld minerals. Foreign minerals wanted. No cutting material. John Parnau, 1342 N. Lincoln St., Stockton, Calif.

STAMPS WANTED, U.S. AND FOREIGN—Will give advanced specimens and gems in exchange; diopside, kunzite, thortomumite, emerald; dozens others, xls and gems. D. Fraser, 26 Peppertree, Portu-guese Bend, Calif.

EXCHANGE—Inderite, szaibelyite, molybdenite, mariposite, lawsonite, arsenopyrite, realgar, hanksite, orpiment. Foreign exchanges welcome. Tod Santos, 7426 Candlewood Way, Sacramento, Calif.

WANTED, OLD COINS — To Trade for beautiful Herkimer "diamonds", Australian opal, ruby, sapphire, emerald etc. Write what you have and what you want. "Satisfaction guaranteed". Andy M. Patapow, 202 Abell Avenue, Solvay 9, N. Y.

TRADE VIOLARITE — Millerite in calcite and on flint. Also pink clinozoisite xls. One for one. What have you to offer. Geo. C. Dick, 9207 Argyle, Overland 14, Mo.

FOSSILS

FOSSILS—12 classified \$2.00. Ask for free price list. Buy, sell or trade. Museum of Fossils, Box 144, Sedona, Arizona.

MIOCENE—Collections of ten to seventy different, identified fossils for \$1.50 to \$30.00. Detailed list of individual varieties with retail, wholesale prices sent upon request. Museums and Universities take notice! Malicks, 5514 Plymouth Road, Baltimore 14, Maryland.

SNAILS—Some weighing several pounds. Trilobites coiled and flat. Clams, good lot. Ferns and leaves, nice assortment. Sold by approval shipments. N.E. Carter, Elkhorn, Wisc.

FOSSIL COLLECTIONS—Sixteen different Devonian, \$1.75; ten representing Major Phyla, \$3.00; eight Miocene, \$1.25; four spirifers, two cephalopods, two gastropods, two echinoids, \$2.49; set including trilobite, blastoid, echinoid, ten different, \$2.25. Robert Eaton, 54 Heberle Rd. Rochester 9, N.Y.

FOSSILS—15 classified \$2.00, 50 classified \$7.50. 15 Cretaceous \$2.00, 15 Pennsylvania \$2.50, 15 Permian \$2.50, 15 Ordovician \$2.50. Large Dinosaur tracks cast in cement from originals. Mammoth teeth, small bones and teeth of various mammals. Everything in fossils from tritrites to tyrannosaurus. Pioneer Museum, 500 N. Water St., Burnet, Texas.

TRILOBITES — (Phacops) \$1.00 and up. Fossil collection, 9 different specimens mounted on attractive card, each identified \$1.25. Ten different brachiopods \$1.50. Gastropod and pelecypod 35c each. Three different corals 75c per set. Don H. White, Box 181, Ottawa Lake, Mich.

FOSSIL SHARK TEETH—Start that collection with the best preserved and most interesting fossils known. Four teeth from 10,000,000 to 60,000,000 years old (from four states - Virginia, Florida, California and Maryland) in attractive plastic box plus bonus of genuine stauro-lite crystal from Virginia. \$2.00 post-paid, while they last. Frank Eastham, Warsaw, Va.

FOSSILS

ILLUSTRATED FOSSIL CATALOG—20¢

Refund on first order. Quarterly listings of rare fossils free to serious collectors. Geological Enterprises, Box 926, Ardmore, Okla.

FOSSILS OF 300,000,000 YEAR OLD PRE-HISTORIC ANIMALS—Authentic. Corals

25¢ each, 5 for \$1.00, 20 for \$3.00. Rare brachiopods \$1.00 each. Echinoderms \$2.00 each. All three fossils for \$3.00. Free gift fossil with orders over \$1.00. All fossils classified. Paleogeologic data included with every order. Gary Taylor, Route #5, Akron, New York.

THE FOSSIL BOOK—With each order for this magnificent book by the Fentons at \$12.50 we will send a collection of 10 different fossils free. Both postpaid. Geological Enterprises, Box 926, Ardmore, Okla.

FOSSIL COLLECTIONS — 25 fossils from Pennsylvanian, Cretaceous and other periods, \$2.00. Advanced collection, 75 fossils, \$5.00. Perfect specimens, 25 for \$12.50. Geological identification with request. Please add 50¢ to cover postage. Tom Ellis, R. #1, Box 108, Crowley, Texas.

FOR SALE (TEXAS RED CRINOID FOSSIL ROCK)—You will have to see it to appreciate its value. Will send samples on request. Please add 50¢ to cover postage. Tom Ellis, R. #1, Box 108, Crowley, Texas.

GEMSTONES

OPALS, BRILLIANT COLORS—Direct from mine, 15 for \$5.00. 10 ringsize cabochons (opal, amethyst, onyx, etc.) \$5.00. P. Kendall, Apartado 80, San Miguel De Allende, Gto. Mexico.

1960 CATALOGS SENT ON REQUEST—

These list over 1,000 cut gems. Stones of all types available on 10-day approval and satisfaction is absolutely guaranteed. See our ad on page 184. INTERNATIONAL IMPORT COMPANY, 128 N. Parkwood Drive, Forest Park, Ga.

SPECIAL GEM MATERIAL — 4 different kinds from our mines for small saws for tumbling. Will make hundreds of cabs and baroques. 100 lbs., shipped, mixed, \$5.50, FOB Barstow, Morton Minerals & Mining, Dept. R, 21423 Old Highway 66, RFD 1, Barstow, Calif.

RARE, CUT GEM STONES—Modest prices—lovely variety. Blue faceted sapphires, faceted rubies, cat's eyes, black star sapphire, blue star sapphire. Approvals gladly made to clients. New clients please give references. A. G. PARSER, INC., 54 West 46th Street, New York 36, N. Y.

WE ARE MINING—Gem material, palmwood, jasp-agate, "chapinite" and jasper. Shipped, mixed, 100 lbs., \$10.50. Sample, \$2.50. FOB Barstow, Morton Minerals & Mining, Dept. R, 21423 Old Hwy. 66, RFD 1, Barstow, Calif., 11 miles west of Barstow.

SUPER-SPECIAL. MOJAVE—agate, Death Valley onyx, Panamint Valley onyx, lavic-jasper, "chapinite," travertine (green), palmwood, jasp-agate, verd-antique. A dream shipment. 100 lbs., shipped mixed \$22.50. Sample, \$3.50. FOB Barstow, Morton Minerals & Mining, Dept. R, 21423 Old Highway 66, RFD 1, Barstow, Calif.

FACETED GEMS AND CABOCHONS—Am offering surplus from my collection at reasonable prices. Many rare & regular items. Correspondence invited. E. E. Joachim, 1710 Inverness Ave., N. E. Atlanta 6, Georgia.

AQUAMARINE, MOZAMBIQUE—Light to medium blue-green. Grade 1 for cabs, tumbling or beautiful specimens, even some small flawless faceting areas. Pieces are 90% transparent but have feathers and inclusions. Size from thumbnail to 2 x 1 x 1 inches which latter size weighs approximately 2 oz. \$1.50 oz. Grade 2—medium colored material but many fractures. Excellent for tumbling or specimens. \$2.50 1/2 lb., \$4.50 lb. Satisfaction guaranteed or your money refunded. Include postage. Excess refunded. Dealers write for prices. Send check or money order to Red Wing Co., Dept. A, Rt. 2, Box 25 A, Parker, Colo.

IDAHO GARNETS—15 for \$1.00, 1 pound \$5.00, tumbled \$2.00 oz. Matched necklace & earrings \$3.75. 1 pound of the following for \$1.00; Fryite, apache tears, copper smelter slag, specimen grade chrysocolla, Desert rose, bird's eye porphyry, massive tourmaline, 3 oz. bag tumbled gems. Pink opal \$2.50, chrysocolla \$10.00, tumbling formula 50¢, big variety special \$3.00. Jones Rock Supply, Elk River, Idaho.

SOMETHING FOR EVERYONE—Specimen minerals, micromounts, thumb nails, cutting material, etc. Free bulletins. Museum and Collectors Supply, P.O. Box 1188, Ardmore, Oklahoma.

MINERALS

COLORFUL MISSOURI OZARKITE—Shades of red, pink, brown, blue, purple and gray. Beautiful cutting materials and crushed pieces ready for your tumblers. Send \$2.00 for our "Generous Get Acquainted Offer" including cutting material, beautiful slabs and tumbled baroques. Our price list mailed with the order. Nevada Rock Shop, 1329 West Allison, Nevada, Mo.

BRIGHT COLORED FLUORESCENTS — Highly fluorescent willemite and calcite from Franklin, N. J. Each piece contains several different minerals. 50c per pound plus postage. Julia Kowal, R.D. 2, Goshen, N. Y.

FANCY SPECIMENS—Send \$5.00 for 20 fancy specimens from Arizona and Mexico. These are small about 1 inch to 1 1/2 inches, but very fancy, nothing common. Postpaid and satisfaction guaranteed or money back. Western Minerals, Box 277, Warren, Ariz.

NEW JERSEY ZEOLITES AND ALL KINDS OF MINERAL SPECIMENS — Geologist picks, hammers, mineralights. Store hours 6 P.M. to 9 P.M. on Weekdays. 10 A.M. to 6 P.M. Saturdays. Leo Sansone, 463 Broadway, Paterson, N. J.

MEXICAN CUTTING MATERIAL SPECIAL —Package #2: 2 lbs. psilomelane (gem), 2 lbs. purple vein, 2 lbs. laguna pieces, 2 lbs. tree agate white and black (opalite). \$11.00 postpaid. Gorins' Gemarts and Rocks, 3315 Tyler Avenue, El Paso, Texas.

NEW HAMPSHIRE SMOKY QUARTZ CRYSTALS—In matrix with albite, microcline from North Conway area. Priced at \$2.00, \$3.00, \$4.50 according to quality. Also albite from \$1.50 - \$3.00. Postpaid in U.S. If not satisfied will refund money on return of specimen. John B. Oliver, Intervale, New Hampshire.

"SILVER MINES" Mo.—Complex ore specimen; sparkling, attractive . . . 50¢ postpaid. Free list of mineral specimens and rough cutting materials. All guaranteed. The Vellor Co., P. O. Box 44RM, Overland, St. Louis 14, Mo.

FOR SALE—Red-brown jasper with white chart. Found locally. Excellent cutting material. All sizes. 85¢ lb., plus postage. William Ross. Box 64, Kearsarge, New Hampshire.

SKY BLUE CELESTITE WITH CALCITE—(xl groups) and Herkimer Co. quartz xls. Will trade. Send any mineral and 50¢ to cover postage and handling. Jerry Reese, R.D. 2, Rome, N.Y.

QUARTZ CRYSTAL—Unusual groups and doubly terminated crystals. Extra fine specimens. On approval. Claude A. Smith, Box 291, Geneva, N. Y.

JUST LOOK! Beautiful chrysocolla \$6.00 to \$60.00 lb. Tumbling chrysocolla \$3.00 lb. Tumbled chrysocolla \$10.00 & \$15.00 lb. Specimens, black velvet tourmaline xls \$3.00 lb. Azurite xls, Mexico \$4.50 lb. Deep blue chalcantinite xls \$1.00 to \$10.00 each. Malachite \$2.00 each. Tumbled abalone shells \$6.50 lb. Pay postage orders \$10.00 or more. Georgia's Rock & Shell Garden, 549 E. Cedar, Globe, Arizona.

WE HAVE IN STOCK—Thousands of fine xls & xled minerals. Rutile xls in matrix, Calif., \$1.00 to \$4.00. Complete pink & bi-color terminated both end, 1 1/2" to 2 1/2" long, 1/2 to 3/4" thick, quality so fine as to be almost faceting, \$5.00 to \$15.00 from Mesa Grande, Calif. Huge blue sapphire xls, Africa \$1.00, \$2.00, \$3.00. Clinzoisite xl groups - new find, choice 2" \$1.50, 3" \$2.50, 4x4" \$5.00. Also xls of chrysoberyl, diopase, brazilianite, kunzite, garnet (many localities) pyrites, Elba), ruby xls, kyanite, spodumene, crocoite, aragonite, epidote after garnet, Mexico, etc. etc. at low, low prices. Write or stop in at SHALE'S, 9226 W. Pico Blvd., Los Angeles 35, Calif.

WULFENITE, AZURITE CRYSTAL SPECIMENS—\$1.00 to \$5.00 and \$.75 to \$4.00 respectively. Be sure to add these colorful minerals to your collection. Priced according to quality, not size. Please add sufficient postage. SNYDERS, P.O. Box 19, Oriskany, New York.

A LARGE SELECTION—Of domestic and foreign xl and massive mineral specimens awaiting your order. Please ask for free list. Continental Minerals, P.O. Box 1206, Anaconda, Montana.

MT. ANTERO & WHITE MT. COLO. — Exceptional fine green, blue green beryl xls in white quartz matrix, also nice single xls. All specimens cleaned. Returnable in 10 days if not pleased. Priced \$2.00 - \$15.00 PP. We also have very nice Joplin Tri-State Area specimens, reasonable prices. Inquiries invited. D & W Crafts, 400 Illinois, Lawrence, Kansas. Dept. RM.

MINERALS

POLISHED BAROQUE MIXTURE OF FOREIGN AND DOMESTIC AGATES—Rhodonite, apache tears, snowflake obsidian, jasper, rose quartz, golden tigereye, amethyst, and others, \$3.95 lb., postpaid; 2 lbs., \$7.25. Slabs big variety, 15c sq. in. Satisfaction guaranteed. Vincil Brubaker, 5318 W. L-12, Lancaster, Calif.

ENARGITE XLS., ROCKBRIDGEITE, MESSELYTE, NAGYAGITE XLS.—Breunnerite, and more. Platinum wire, alcohol lamps, blow pipes, very reasonable. Exchange or sale. Please ask for free list. Ebinger, 21 Brigham Ct., Rexdale, Ont., Canada.

EAST-WEST MINERAL SERVICE—5 fluorite octahedrons \$1.00; 3 Herkimer "diamonds" \$1.00; 4 quartz xls with inclusions, byssolite \$1.00; 3 elrathia kingi trilobites \$1.00; *5 apatite xls \$1.00; *5 almandine garnets \$1.00; *5 Brazilian tourmalines \$1.00. A nice specimen of each for \$2.00. Postage extra; excess refunded. *10% Federal tax. List. Write American Gem Hunter, Box 13, Van Brunt Station, Brooklyn, N. Y.

FINE MINERAL SPECIMENS—Cinnabar with azurite; cinnabar; tungstite; emerald green atacamites; crystalline epidote; vesuvianite xls; jarosite; germanite; tennantites. Rocks for Geological study as follows: Andesites, basalts, rhyolites, gabbro, diorite. Peter's Rocks and Minerals, 1316 East Colfax Ave., Denver 18, Colorado.

WYOMING DARK GREEN JADE—\$4.00 lb. plus 10% tax. Sweetwater agates, \$3.50 lb. plus 10% tax. Wyoming palm wood, \$1.00 lb. Please add postage. Rawhide Rock Shop, South 85, Lusk, Wyoming.

MEXICAN FIRE OPALS IN MATRIX—2 for \$1.00. Obsidian arrowheads made by Aztec Indians in Mexico, 2 for \$1.00. Authentic Aztec relics of 800 to 2,000 years, fragments of human head carvings in ceramic and stone, \$2.00 Postpaid. M. V. Christian, 312 West Logan, Moberly, Mo.

NORTHERN ORES & MINERALS—CABINET SIZE, \$1.00 to \$3.00. Cobalt, Native Copper, Hematite, Geothite, Galena, Sphalerite, Thomsonite, postpaid. Lyle De Rusha, R. 1., Chippewa Falls, Wisc.

CINNABAR CRYSTALS IN MATRIX—\$1.50 lb. Satin Spar \$1.00 lb. Quartz clusters \$2.50 each. Large individual quartz crystals. Please include postage. Satisfaction guaranteed. Special prices for quantity buyers. Dixie Minerals Co., 3405 Grand Ave., Fort Smith, Arkansas.

MINERALS

ASTERIATED ROSE QUARTZ (Georgia)—\$2.50 lb., Virginia unakite \$1.25 lb., Georgia banded travertine 75c lb., massive epidote \$1.25 lb., purple jasper with epidote \$1.00 lb., Apache tears "smoky topaz" rough \$1.00 lb., snowflake obsidian \$1.00 lb. Specimens—drusy quartz on quartz crystals, 2x2, 75c, sea green foliated talc 50c lb., pink Georgia marble 50c Please add postage. List & corundum crystal 25c coin. Geo. Brown, Box 535, Gainesville, Ga.

VANADINITE, AVOGADRITE, KUTNAHORITE, WAGNERITE—And 860 other mineral species and varieties in stock for the amateur and advanced collector. Catalog—10c Allen's, Dept. S, 322 W. 23rd., So. Sioux City, Nebraska.

ALABASTER, ONYX, JADE, GREEN OPAL—Black garnet, gem obsidian, chrysoprase, rhodonite, rock crystal, agatized cedar, quartz mosaic, signet plasma. This 12 specimen gemstone sampler for \$2.00. Gemstone and mineral price included. Old Prospector, Canyon, California.

TWO MINERALS OF MY CHOICE—Highest quality, and postpaid for only \$1.75. Order in sets of two — Something free with every order. Send stamp for free price list with Nebraska gem fields. Everett, 2941 North 65th, Lincoln 5, Nebraska.

LOUISIANA LAPIDARY & SPECIMEN MATERIALS—Louisiana banded & fortification agates, selected \$2.25 per lb. Petrified wood \$1.00 lb., opalized palm slabs \$2.00 ea. Nine items collection all different from Louisiana, including silicified coral and agates, postpaid \$3.00. Ken Kyte, Box 161 or 530 E. Boston St., Covington, Louisiana.

IN MIAMI, FLORIDA—Visit the Rock & Shell Shop, the complete Rock Shop. We have lapidary equipment supplies, rough and slabbed gem materials. Mineral specimens, mountings and jewelry. Agatized coral our specialty. Sorry, no catalog. Rock & Shell Shop, 2036 S.W. 57th Ave. (Red Rd.), Miami 44, Fla. Visitors always welcome. Geo. & Mildred Williamson.

ADVANCED COLLECTORS—741 species and 124 varieties of minerals in stock. Can also obtain many others. Write your wants. We trade. Catalog—10c. Allen's, Dept. D, 322 W. 23rd, So., Sioux City, Nebraska.

MINERALS

ENDLICHITE, OLIVENITE — Millerite, violarite, many other nice crystallized specimens. Something free with each order. List ten cents. Old Trails Minerals, 9207 Argyle, Overland 14, Mo.

SCOTT'S ROSE QUARTZ CO. — Rose Quartz — also Black Hills Rock Specimens of many kinds and colors, for Rock Gardens, Cabinets, etc. Boxes 24 Rock Specimens — \$1.25; 18 — 90c; 15 — 55c; postpaid. Send 3c stamp for Price List. 1020 Custer Ave., Custer, South Dakota.

PETOSKEY STONES FOR SALE — Any size or amount. Will take a beautiful polish. \$1.00 a pound. On orders of 15 lbs. or more we will pay the postage. Frank A. Fisher, 607 — 7th, Jackson, Mich.

OIL GEODES — Back from vacation. 1 super oil geode 7 x 5 x 4 \$10.00, 8 unbroken 3" each, \$1.50. 14 2" each, \$1.00. Free small one with order. Not guaranteed after breaking. F.O.B. Dick Hedges, 5844 South St., Lincoln, Nebr.

12 ASSORTED IDENTIFIED SLABS — Cab grade of colorful Northwest materials, not less than 24" \$3.00. 8# of agatized and opalized Washington wood \$5.00. Slab of agatized or opalized wood not less than 5", each \$1.00 per slab. All above postpaid. Wood from Washington available in quantity. Free price list. HELEN'S ROCK SHOP, 1505 West Yakima Ave., Yakima, Washington.

CONNECTICUT MINERALS AND SPECIMENS FOR SALE — Beryl, rose quartz, tourmaline, spodumen, quartz crystals and many others. Pappy's Beryl Shop, open Thursday through Sunday 9 A.M. to 7 P.M., opposite White House Motel, Rt. 6A, East Hampton, Conn.

REAL BARGAIN OFFER — One generous specimen of amazonite, topaz, sodalite or wernerite, tremolite, hackmanite or quartz, calcite, tourmaline xls. One dollar postpaid. Whiteface Mineral Shop, Lake Placid, N. Y.

GOLD ORE - SYLVANITE — High grade gold telluride - assays \$1,000.00 per ton from the famous Gold King Lode . . . first gold mine discovered in Cripple Creek, Colo. One-half pound \$1.00 postpaid. Larger pieces at \$2.00 per pound postpaid. Jack Turner, Mining Engineer, Blackhawk, Colorado.

TOURMALINE CRYSTALS — African, Brazilian, green shades, blue green bi-color, green pink, cabochons 3 ounces \$2.50. Amethyst, Rhodesia, terminated crystals, deep purple cabochons \$1.50. Cuprite, New Mexico, choice dark red cubic crystals on copper, azurite, Mexico, choice brilliant royal blue prismatic crystals on olivine, malachite, both \$2.95. Genuine emeralds, Columbia, South America, beautiful small hexagon crystals, 1 for 90¢, 2 for \$1.30. All nice size specimens. Tax Postpaid. Rocks & Minerals, Box 198, R.D. No. 1, Elkins, W. Va.

MEXICAN AGATE, POUND PRICES — Bird of Paradise, cathedral, naica vein, blue nodules, coyamito nodules, red spiderweb \$1.75; psilomelane, lace, or tumbling amethyst - small 90¢, large \$1.50; laguna, moctezuma, suco nodules - small \$2.50; F.O.B. Write for list including other materials. LITTLE GEM SHOP, (Ray Lenhoff), 529 Cedar St., S.E., Albuquerque, New Mexico.

WESTERN ROCKS & MINERALS — From Alaska to Mexico. Jade, agate, jasper, wood, rhodonite, obsidian etc. Grade excellent to best 25¢ to 50¢ per sq. in. Add 10% for tax and postage, orders of \$5.00 and over tax and postage postpaid. Many other varieties not mentioned at value. Kramer Motel & Rock Shop, 2145 So. Main St., Gooding, Idaho.

RARE NATIVE ARSENIC — Scheelite, and other Canadian minerals. Cutting material, slabs. We sell and trade. Foreign correspondence invited. Fairfield Lapidary, 1769 Fairfield Rd., Victoria, B.C., Canada.

LATE WINTER MINERAL SELECTIONS — Specials; Mexico - pink to raspberry rhodochrosite cleavages, 3/4 to 1" \$1.50 to \$2.00 each; Madagascar - terminated dark red corundum crystals 1/4 to 3/8" 50¢, 75¢, \$1.00; Brazil - kyanite, blue terminated crystal prisms avg. 1/4 x 1 1/2" 40¢ - 75¢ each postpaid. Send for free specimen price list. Fine crystals, topaz, tourmaline, gold. Write your wants. Satisfaction guaranteed. Red Wing Co., Rt. 2, Box 25 A, Parker, Colorado.

OPALS AND SAPPHIRES DIRECT FROM AUSTRALIA — This month's best buy: Cut & polished solid opals ready for mounting, 2 ovals each 6 x 8, 8 x 10 x 10 x 12 mm. All 6 for . . . \$15.00 Free Airmailed. Send personal check, international money order, bank draft. Free 16 page list of all Australian Gemstones. Australian Gem Trading Co., 294 Little Collins Street, Melbourne, Australia.

MINERALS

FINE MINERAL SPECIMENS FOR SALE—

Phone for appointment when in Boston or write: M. W. Wall, 24 Euston Street, Brookline 46, Mass.

IOWA GEODES—Two to four inch \$2.50. Fluorite from Rosiclare, Illinois, \$2.00 to \$5.00. Beautiful celestite xl groups from Ohio, \$2.00 to \$5.00. Maurice Lamb, Niota, Illinois.

TWELVE NEW MEXICO MINERALS —

\$2.00, six fluorescents \$1.06, five crystallized minerals \$1.06, average one inch. Postpaid. Lists. H. Hartson, Winston, New Mexico.

FRANKLIN FLUORESCENTS — 5 lbs. of

selected willemite and calcite with Franklinite, 2" to 4" pieces, highly fluorescent, \$3.50. Ultra-violet Mineralights, short and long wave, \$14.75 and up. Fine cabinet specimen free with each light. Also, cabinet specimens, \$2.50 and up. All postpaid in United States. Member Franklin Mineralogical Assoc. Steve Stevenson, R.D. 1, Port Jervis, N. Y.

BEAUTIFUL LINCOLN COUNTY, N. C.

AMETHYSTS — Large xls, some double-terminations, abounding in phantoms, marvelous specimens \$1 to \$100. Write for free list. Allison Rocks and Novelties, 1811 Cheek Road, Durham, N. C.

OHIO FLINT, FROM THE FAMOUS FLINT

RIDGE, OHIO AREA—Pastel mottled, grey, tan, orange, brown, and blue near purple. This material takes a good polish, is hard and tough. \$1.25 a pound PP anywhere in U.S. The Majors Rocks, on U.S. 42 at Sligo, Ky., mail Sulphur, Ky.

GEOLOGY HAMMER—Forged steel head,

lightweight hickory handle, \$3.50 postpaid. Hammer head only, \$3.00 postpaid. Breeders Equipment Co., Flourtown, Pa.

ARIZONA CUTTING MATERIALS—Pastel,

moss, fire, and banded agate, red jasper with black and/or white patterns, sagenite jasp agate, onyx, black and gold material takes good polish, also specimen chrysocolla. Wholesale quantities only, write for descriptive price list. George Powers, 503 South Pinto Drive, Scottsdale, Arizona.

DIAMONDS: Thousands of fine xls. available. All sizes from small perfect xls. for micro mounts to large perfect xls. for specimens and cutting, from 75¢ each to \$20.00 per ct. Lapidabrade, Inc., 2407 Darby Road, Havertown, Pa.

BEAUTIFULLY TUMBLER—POLISHED OCEAN AGATE AND JASPER—\$2.50

per pound postpaid. Polished Apache Tears from Arizona, \$3.00 per pound ppd. Olympic Agate Shop, Rt. 3, Box 56, Gig Harbor, Wash.

CHOICE BARITE ROSES — \$1.00 each.

Dealers write for wholesale prices. W. L. Hiss, 524 W. Symmes, Norman, Okla.

MISCELLANEOUS

IF YOU ARE OUT LOOKING FOR—Black-

lights, fluorescent materials, rough and slab materials, high grade faceting materials— Come visit us. 8" hard maple wood wheels for polishing - grooved to order - treated against oil & water. Flick's Lapidary Shop, 1803 Millfair Road, Erie, Pa. (Half-way between Routes 5 and 20)

SALT LAKE CITY, UTAH—Drop in when

out this way. A complete lapidary equipment, supplies, findings, rough Australian opal, Spec-Tec Blacklights, etc. No catalog. Will give a sample of oolite sand from the shores of Great Salt Lake, plus a circular giving directions to Utah locations to those who drop in and ask for some or enclose a stamped, self addressed envelope with inquiry. Ken Stewart's Gem Shop, 136 West South Temple, 1/2 block west of Temple Square, Salt Lake City, Utah.

20 CALIFORNIA ROCK SPECIMENS—In-

cluding jewelry stones such as agates, jaspers, jade, \$1.00 plus 25¢ handling. Hobby Club Rock Shop, Box 902, San Jose 4, Calif.

FREE - FREE — "The Prospectors Pocket

Book", a regular \$3.85 value with every slab order. 50 sq. ins. assortment, jaspers, agates, obsidians, woods. Only \$5.00 postpaid. No COD's. Kaiser's Gems and Minerals, 1304 East Main Street (Hiway 80), El Cajon, Calif.

MISCELLANEOUS

SPECTROSCOPE and illustrated, cloth instruction Book for quick ore and mineral analysis \$7.00. Cutting Scope Co., 875 Arastradero, Palo Alto, Calif.

ALPHA-COUNTER—For immediate positive detection of radioactive ores. Guaranteed to operate wherever alpha particles are present. Operates with all uranium minerals. \$9.25 post paid. Breeders Equipment Co., Flourtown, Pa.

NAVAJO LAND — Glen Canyon Trading Post, Page, Arizona, on U.S. 89. Vacation Hdqts. for Bryce & Grand Canyons, Zion Nat. Park, Monument Valley, Rainbow, Nevada & Glen Canyon Bridges on Colorado River. Indian Crafts, Souvenirs, Rock Shop & large fluorescent display.

HOLIDAY IN CANADA—And combine your holiday with your hobby. Cottage resort in the Bancroft area, sodalite, amazonite, beryl, rose quartz. Trips arranged. Northern Pines, Lake St. Peter, Ontario, Canada.

JADE, BLESSED BY—King Neptune and cast up by the sea. Send for your lucky piece, polished and bell capped, ready to hang on your necklace, bracelet or key ring. Mail \$1.00 to cover cost, price list, taxes and handling. Woolman's Treasure Chest, Dept. RM, Morro Bay, Calif.

"OVERLOOKED FORTUNES"—In the rarer minerals and gemstones. Here are a few of the 300 or more you may be overlooking while mining, prospecting or gem hunting: uranium, vanadium, columbium, tantalum, tungsten, nickel, cobalt, selenium, germanium, bismuth, platinum, beryllium, golden beryl, emeralds, etc. Some minerals worth \$1 to \$2 a pound, others \$25 to \$100 an ounce. Some beryllium gems worth a fortune; get out of the agate class into the big money; an emerald the size of your thumb may be worth \$500 to \$3000 or more! Learn how to find, identify, and cash in on them. New simple system. Send for free copy "Overlooked Fortunes"—it may lead to knowledge which may make you rich! Duke's Research Laboratory, Box 666, Dept. 2, Truth or Consequences, New Mexico.

MISCELLANEOUS

NEW YORK CITY—Is surrounded by terrific collecting localities! I'll swap good material from Tilly Foster, Thomaston Dam, Jersey trap quarries, excellent Franklin "buckshot" and many, many others, for crystallized material. Foreign correspondence welcomed. Bob Harrison, 886 East 10th St., Brooklyn 30, N. Y.

ROCKHOUND "COLLECTORS"—Contact us for the rare, choice select, odd and unusual. Gemstones, minerals, carvings, fossils, artifacts, relics, etc. Open days and evenings. The Cole's, 551 S.W. Coast Hiway, Newport, Oregon. "Visitors always welcome anytime."

HI-POLISHED BAROQUES—Fisheye agate, amethyst, turritella agate, scenic rhodonite (pink and black), Death Valley agate, apache tears, jaspers, petrified woods, multi-colored tigereye, bloodstone, India green moss, and others. Assortment of above stones - \$4.95 per lb., postpaid. All guaranteed. First grade material. Prices of individual varieties upon request. Hardin's 510 W. Main Cross Street, Findlay, Ohio. GA. 2-5775.

DEALERS—Write for wholesale price lists on our fabulous line of non-tarnishing aluminum chains and findings. If you include \$1.00, samples will also be sent. Please include your tax number with letter. R. B. Berry & Co., 5040 Corby St., Omaha 4, Nebr.

FOUR DRAWER COLLECTION CABINETS

—Solid walnut-material brown finish, hard maple-colonial finish, solid Honduras mahogany-blond finish. With polished brass or antique copper hardware. Outside dimensions-10½ x 13 x 20½ inches long, 20 lbs. price - \$49.50, 12 x 17 x 26½ inches long, 30 lbs. price - \$64.50 F.O.B. Ardmore. Write for free brochure. Dealer's inquiries welcome. Museum and Collectors Supply, P.O. Box 1188-R, Ardmore, Oklahoma.

REDUCED PRICE — On "Prospecting in Orange County New York", only 50¢ by mail. Trader Ed, 624 Broadway, Newburgh, New York.

VISIT WEST VIRGINIA'S ONLY MINERAL MUSEUM — Eldersville Road, Follansbee, W. Va. Good mineral specimens xld. and massive. Also jewelry. Jim Smedley.

Buy and Use a Good Mineral Book

MISCELLANEOUS

ULTRAVIOLET ELECTRICAL PARTS—

(complete) for 4 watt G4T4/1 or F4T4/BL \$4.50 postpaid. For long-shortwave combination \$5.75 postpaid. Circuit included. Tubes, filters available. Radiant Ultra Violet Products, Cambria Heights 11, New York.

WANT TO BUY: Good quality mineral specimens from North Carolina. Single crystals or groups. Small lots or individual specimens desirable. Write full details to Box 504, Borough Hall Station, Jamaica 24, New York.

MAINE FLUORESCENT PEGMATITE—3

different colored 1" specimens \$1.00 PP. Free price list. Winthrop Mineral Shop, Winthrop, Maine.

MEXICAN CUTTING MATERIAL SPECIAL

—2 lbs. sagenite lace, 2 lbs. crazy lace, 2 lbs. black plume (also fls.), 1 lb. bird of paradise, 1 lb. nodules, \$10.00 postpaid. Tax included. We sell at wholesale to bona fide dealers. Send for price list. Gemarts and Rocks, 3315 Tyler Avenue, El Paso, Texas.

FOR SALE — Well established Lapidary Shop in southwest location, retail and wholesale proposition. Fossils, crystals and mineral specimens, Jewelry, findings, etc. Tons of choice cutting material. We are dealers for all major brands of lapidary equipment. Complete cutting and polishing equipment in work shop, store fixtures and show cases included. Health reason for selling. Write: Box H, c/o Rocks and Minerals, Box 29, Peekskill, N. Y.

RIKER MOUNTS—Glass covered specimen boxes, cotton filled for valuable specimens, gems. All sizes. Send for price list. Breeders Equipment Co., Flourtown, Pa.

GOING TO THE MID-WEST FEDERATION CONVENTION—

To be held in Ishpeming, Mich., next July 1, 2, 3, & 4? If so, now is the time for inquiries. You may contact Bob Schenk of Schenk's Rock Shop as to the rental of cabins during convention dates. My son and I are also on the Field Trip Committee as guides. We also have specimens & finished jewelry for sale and trade at our Rock Shop, so you see—we can serve your needs in many ways. Send your inquiries now before the rush begins—to Schenk's Rock Shop, Rt. 1, Box 71, Witch Lake, Republic, Michigan.

MISCELLANEOUS

INTERESTED IN ADIRONDACK M.T. ROCKS & MINERALS, EXPLORING, VACATIONING—

We are located on U.S. Rt. 9, 5 mi. north of Chestertown and offer modern cabins, family units, spacious grounds, tent sites, and coffee shop. I am a licensed Adirondack Guide for hunting, fishing & prospecting parties. Our Mineral Shop features many fluorescent specimens, crystals, cutting material etc. You will thoroughly enjoy the time spent in this geologically interesting area with its garnet deposits, rare blue calcite, vesuvianite, fluorescent anorthoclase, labradorite. You will be interested in all the famous Adirondack attractions, as well as the lakes, mountains, fishing, prospecting. So make your plans now to stay with us while in this area and if you can't stay, at least stop in and say hello. Roy Snyder, Adirondack Cabins, Rt. 9, Chestertown, N. Y. Phone 2420.

ORIGINAL ROCKHOUND CAR PLATES —

\$1.00 each. Dealer discount. Agatized coral, 2 lbs. \$2.50, polished halves \$1.00 up. Crystals. Postpaid. Roder's Coral Museum, R 7, Hot Springs, Ark. 6 miles out north 7.

IVORY TUSK SECTIONS, SOUTH AFRICA—

Carve bracelets or cut into cuff links etc. Approximate size 3" diameter, 1/2" thick with 2" tapered hole through center. 75¢ each postpaid. Paul Chase, 3816 Collingwood S.W., Grand Rapids 9, Mich.

ATTENTION ADVERTISERS—When figuring cost of a classified ad, be sure to include your name and address.

COMPLETE YOUR ROCK AND MINERAL COLLECTION—

With eighteen geologists samples, Colorado igneous rocks. Classified, information, chart. All for two dollars postpaid. Satisfaction or refund. Edward Oler, 3017 Stuart Street, Denver 12, Colorado.

ARIZONA APACHE TEARS—

Clear field run tumbled polished \$2.75 lb., 5 lbs. or over \$2.50 lb. Mine run rough, 100 lbs. \$25.00, small 100 lbs. \$50.00. Va. staurolite fairy crosses, 1 doz. \$3.00, 100 for \$20.00. Earrings, flat and dangle, rhodium or gold, 1 doz. on card \$6.00. Necklace, gold and rhodium, mixed stones, 1 doz. \$6.00. Everything F.O.B. Mesa, Ariz. No catalogue. We cannot accept open accounts due to expense in book-keeping. Mother Natures Art Shop, Route 4, Box 4380, Mesa, Arizona. Highway 60, 70, 80.

MISCELLANEOUS

OUR FOURTH YEAR IN THE ROCK BUSINESS—So help us celebrate. Ready-made bola ties, with nice tumbled stone, R.P. Tips and rayon cords. Only \$4.50 1/2 dozen. Everett's Rock Shop, 2941 No. 65th, Lincoln, Nebr.

OPERATE ROCKHOUND - WILDCRAFTER SUPPLY AGENCY—Buying, selling, trading minerals, rocks, sands, soils, fossils many other "Wildlings". Let Mother Nature finance you. Suppliers' Bulletin 25c; details 4c. Bill McCampbell, Calxico (since 1929), Calif.

SLABS—Tremendous stock to select from. Ask for approval selection. State preferences. Frank Chambers, 50 Fleetwood Ave., Mt. Vernon, N. Y.

PETOSKEY-STONE—\$1.00 pound, slabs 10c square - 1 inch, Lake Superior agate, \$2.50 pound, rhodonite, 6 pounds \$5.00. Orders over \$5.00 postpaid. Hazett Stamp Shop, 620 N. Grant, Bay City, Michigan.

OBSIDIAN - NEVADA — Obsidian slabs, black 5" \$1.00, brown 4" \$1.00, postpaid, Pinon Rocks, Rt. 2, Box 150 A, Bishop, Calif.

WANTED—Fine mineral specimens or complete collections. Please write details. Lawrence H. Conklin, 31 West 47th St., New York 36, N.Y. Plaza 7-2264.

MEXICAN TUMBLING MATERIAL SPECIAL—Package #3: 5 lbs. eye agate beans, 5 lbs. crazy lace, 5 lbs. nodule pieces, \$12.00 postpaid. Gorins' Gemarts and Rocks, 3315 Tyler Avenue, El Paso, Texas.

ULTRAVIOLET LIGHTS—Make your own. For beautiful fluorescent mineral displays, prospecting, etc. Handbook tells how. Easy, inexpensive. Send \$1.00. Trans-space Laboratory, Box 111, Princeton Junction, New Jersey.

WANTED—American Gold Coins. All denominations, highest prices paid. Please write giving description of coins, date, condition, etc. Lawrence H. Conklin, 31 W. 47th St., New York 36, N.Y. Plaza 7-2264.

GEIGER COUNTERS—Make your own. For uranium, thorium, radioactivity, cosmic rays. Complete plans for five different circuits. Easy, inexpensive. Send \$1.00. Transspace Laboratory, Box 111, Princeton Junction, New Jersey.

HERKIMER & ARKANSAS "DIAMONDS"—Red garnets, golden apatites, selenites, gold, silver, sapphires, pyrites 10 for \$1.00. Ellenville crystal clusters 25c up. Fluorescent rainbow rocks 40c lb. 5 lbs. free with Mineralight. Large mineral collection for sale 50c lb. Postage. Monroe Mineral Store, Lake Road, Monroe, New York.

WALNUT DISPLAY CASES—Solid walnut construction, glass top with cellulotton pad and resilient cotton filler. Two depths. Dimensions: Inside 7 3/4 x 11 3/8 inches and outside 8 1/2 x 12 3/8 inches, 1/2" depth - \$3.00 each, 1" depth - \$3.75 each. Write for free brochure. Dealer's inquiries welcomed. Museum and Collectors Supply, P. O. Box 1188-R, Ardmore, Oklahoma.

LOCATE GOLD! Four different rocks containing fine gold, \$1.00. Instructions, 10g. Powerful microscope, \$2.00. Postpaid. Gold, 5330 College Avenue, Oakland, Calif.

ASSAYS—Complete, accurate, guaranteed. Spectrographic. Over 55 elements including rare earths and radioactives. \$8. Reed Engineering, 620-J So. Inglewood Ave., Inglewood 1, Calif.

DINOSAUR GASTROLITHS—Polished 100 million years ago in a dinosaur gizzard. One dozen assorted sizes up to two inches and 1/2 pound dinosaur bone \$2.00 prepaid. Free circular information on dinosaurs and Wyoming fluorescent material. B. J. Keys, Box 572, Worland, Wyo.

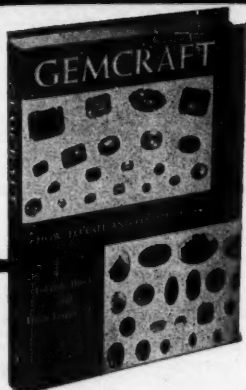
SAND

START SAND COLLECTION—50 different sands, many States, nifty collection, 3 dr. envelopes. \$5.00 postpaid. Glen E. Kiser, Douglass, Kansas.

250 VARIETIES SAND, U. S. and Foreign. Want to trade for minerals, particularly t-ns, not cutting stuff. Glen E. Kiser, Douglass, Kansas.



GEMCRAFT



*the most modern
up-to-date and complete
book on how to cut and
polish gemstones*

**Leland Quick and
Hugh Leiper, F.G.A.**

*Here is all the concentrated information
from many years of experience in gem cut-
ting by two widely acknowledged experts.*

The writing of this work has been aided by their unexcelled opportunities for gathering advanced ideas on the best methods and techniques of thou-

sands who are following America's third-largest and fastest growing craft hobby . . . gem cutting. The most modern machines and devices designed to aid the amateur in perfecting his skill are described and pictured, with scores of how-to-do-it photographs of step-by-step easily followed directions that graphically show the beginner how to start and complete the cutting of a gemstone; yet there is plenty for the expert too.

The authors, Leland Quick, Publisher and Editor of *The Lapidary Journal* since it was founded in 1947, and Hugh Leiper, F.G.A., Associate Editor of the *Lapidary Journal* and formerly editor of the *Mineral Hobbyist*, brought to the writing of this new book the combined experience of two experts in the field who are actual gem cutters and faceters and are thus equipped to write from first-hand knowledge. In a unique manner, they have also had, over the years, contact with all that is best in the cutting, carving, grinding and polishing techniques developed by thousands of devotees of the lapidary craft.

242 pages (7 1/4" x 10 1/4"), 180 illustrations, \$7.50

The illustrations and diagrams—180 in number, are a feature of the book and show in detail how to carry on the various steps in each process, to prove that gem cutting can be done by anyone. Best examples of the finished work of scores of amateurs embellish the book.

At book stores, arts and crafts shops or postpaid from the publisher

Dept. RM-10
CHILTON CO.—Book Div.
56th & Chestnut Streets
Philadelphia 39, Pa.

☐ Check here if payment is enclosed, in which case we pay postage.

Please send me copies of GEMCRAFT by Quick & Leiper for 10 days' FREE examination. After 10 days I will either remit \$7.50 (plus a few cents postage) and keep the book(s), or return the book(s) without obligation.

Name.....

Address.....

City.....Zone.....State.....

NEW REVISED

Special Offerings of Rocks & Minerals for Comparison Purposes

POSTPAID ANY 10 FOR \$1.50 — ANY 50 FOR \$6.00 — ANY 100 FOR \$10.00
All specimens are approximately 1" in size, except as noted. Each specimen is fully labeled as to name of mineral, major associates and locality. Each is wrapped individually with its label.

GROUP NO. 1—MINERALS OF ECONOMIC INTEREST—70 Specimens for \$7.00 postpaid!

Autunite	Azurite	Bentonite (in Vial)	Cerussite	Pentlandite
Talc	Kyanite	Hausmannite	Cinnabar	Rhodochrosite
Beryl	Realgar	Amblygonite	Hematite	Anglesite
Borax	Alunite	Vermiculite	Chromite	Malachite
Halite	Cuprite	Bastnaesite	Stibnite	Magnetite
Pyrite	Bornite	Smithsonite	Ilmenite	Collophane
Sulfur	Braunite	Sillimanite	Columbite	Chalcocite
Quartz	Enargite	Molybdenite (in Vial)	Diatomite	Polyhalite
Galena	Smaltite	Arsenopyrite	Magnesite	Pyrolusite
Gypsum	Cryolite	Tetrahedrite	Spodumene	Sphalerite
Barite	Goethite	Hemimorphite	Celestite	Andalusite
Bauxite	Limonite	Strontianite	Scheelite	Chrysotile
Calcite	Fluorite	Wollastonite	Carrollite	Garnierite
Brucite	Orpiment	Chalcocopyrite	Covellite	Lepidolite

GROUP NO. 2—GEMS AND MINERALS—70 specimens for \$7.00 postpaid! (+ 13c Federal Excise Tax)

Opal*	Amethyst*	Indian Moss Agate *	Bloodstone*	Rose Quartz
Jadeite*	Bakerite	Topaz* - 1/4" Crystal	Turquoise*	Franklinite
Trona	Burkeite	Petrified Wood	Purpurite	Stibiconite
Howlite	Jarosite	Meyerhofferite	Jasp Agate	Chrysocolla
Ilvaite	Linarite	Nephrite Jade*	Antigorite	Psiomelane
Malrite	Siderite	Hydromagnesite	Norbergite	Piedmontite
Kernite	Alunite	Opalized Wood*	Vanadinite	Conicalcalite
Ulexite	Selenite	Dendritic Agate	Aventurine	Dumortierite
Idocrase	Willemite	Golden Tigereye*	Forsterite	Scapolite
Inderite	Rhodonite	Andradite Garnet*	Pyrrhotite	Hydrozincite
Pricite	Allophane	Grossularite Garnet*	Colemanite	Apthitalite
Spurrite	Wulfenite	Apatized Dinosaur Bone	Mariposite	Smoky Quartz
Mimetite	Witherite	Ruby Corundum - 1/5" Crystal	Jasp-Opal*	Clinzoisite
Zoisite	Marcasite	Monazite (Sand in Vial)	Schefferite	Pyrophyllite

(Comparison specimens, not selected cutting materials)

* Add 10% Federal Excise Tax to specimens marked with asterisk *

GROUP NO. 3—ROCKS AND ROCK FORMING MINERALS—70 specimens for \$7.00 postpaid (+ 2c Federal Excise Tax)

Albite	Alabaster	Calcite - Satin-Spar Type	Tourmaline*	Microcline
Slate	Diorite	Blue Calcite	Orthoclase	Nepheline
Chert	Epidote	Cumingtonite	Greenstone	Natrolite
Flint	Blotite	Anthophyllite	Actinolite	Tremolite
Chalk	Granite	Jasper Breccia	Travertine	Limestone
Tuffa	Perlite	Graphic Granite	Oligoclase	Larvikite
Basalt	Apatite	Siliceous Sinter	Serpentine	Sandstone
Marble	Diopside	Oolitic Hematite	Anthraxite	Omphacite
Gabbro	Andesine	Almandine Garnet*	Glaucosite	Anorthite
Pumice	Alurgite	Obsidian (Flowering)	Barkevikite	Quartzite
Augite	Dolomite	Olivine (Chrysolite)	Glaucophane	Anhydrite
Dacite	Bronzite	Wonderstone (Rhyolite)	Labradorite	Muscovite
Aplite	Andesite	Fused Radioactive sand	Mica Schist	Kaolinite
Gneiss	Graphite	Bastite	Prochlorite	Hornblende

YOU MAY SELECT

ANY FIFTY SPECIMENS, \$6.00

ANY TEN SPECIMENS, \$1.50

POSTPAID

ANY HUNDRED SPECIMENS, \$10.00

YOU MAY SELECT

ANY FIFTY SPECIMENS, \$6.00

Any Two Groups of specimens may be ordered for a combined price of only \$12.50 postpaid. All Three Groups (210 specimens in all) May be had at a combined price of only \$18.50 postpaid.

Collection boxes are available—Study cardboard boxes, 70 partitions in each, large enough to hold specimens to nearly 2" in size—\$2.25 postpaid—three for \$6.00 postpaid. Western United States. Groups 1-2-3, shipped with 3 collection boxes—\$24.50 postpaid.

(Add 25c per collection box orders going to the Eastern half of the United States, or to Canada). California Customers add 4% state sales tax, please.

MINERALS UNLIMITED

1724 University Avenue - Dept. R & M

Berkeley 3, California

SATISFACTION GUARANTEED

Ideal for Collectors, Students, Children, Prospectors or Anyone Interested in the Mineral Hobby.

BIG SAVINGS NOW ROCKHOUNDS UP TO 33% OFF

STERLING SILVER
3 x 1" NO-CRAFT
JEWELRY BLANKS

Ideal for making rings, bracelets, and many other jewelry pieces of original design. 4-piece assortment at a sensational price... \$3.35 value! 1 each of 24, 26, 28, and 30 gauge in the offering.

Order as: 519-K.....only \$1.95

CARVED SNOWFLAKE JADE

Green jade... 12 x 16 mm Oval... excellent stone for large rings—carved. A regular \$2.10 offering.

Order as: 520-K.....now only \$1.00

WE
DARE

YOU TO COMPARE

This "25X Ruper" Magnifier with any magnifier you now use! Full 1/4" diameter corrected lens! Nickel plated metal folding frame. Equivalent to other \$5 magnifiers.

Order as: 1130-35K.....\$1.00

Matched pair

GREEN BURMA JADE FANTAIL FISH

Superbly carved pair. The noses are drilled so they can be hung as dangle earrings. Size 3/4" x 1/4". This is an outstanding value (sells regularly for \$5.85).

Order as: 521-K.....pair only \$2.95

SMOKY QUARTZ
OR
SMOKY TOPAZ

Also known as Scotch Cairngorm. Brilliant, sparkling, faceted 13 x 18 mm. Oval Gem. You also get large catalog of jewelry mountings for mounting these lovely gems.

Order as: V94-15K.....each \$1.00

Sturdy-Practical
HAND VISE

A really super value for the jeweler and hobbyist alike. This item has been advertised for as much as \$2.25.

Order as: 525-K.....Special only \$1.00

PROFESSIONAL
SWIVEL
BENCH VISE
2 SETS OF JAWS

Outstanding value — rotates in 2 different planes... top section in horizontal — jaws in vertical. Top sets of jaws are 2 1/4" wide—bottom set 1 3/4". 180° rotation of jaws possible. Jaws open to 2". Flat area on top of vertical column for use as anvil. Jaws are smooth. A \$10 value.

Order as: 527-K.....only \$5.95

Full cash refund if not more than pleased.

BAROQUE GEMS IN
SPECIAL ASSORTMENT

A big 2-oz. bag of ass't sizes from 1/4" to 1/2". Highly polished gems of Mexican Amethyst, Bird of Paradise Agate, Abalone Rainbow Pearl, etc. Very useful lot of gems for jewelry and for decorating hand bags. Don't pass this value up!

Order as: 537-K.....bag only \$1.00

ROUGH GEM
STOCK
GOLDEN
TIGER EYE

3/4" pound of well-marked, quality Golden Tiger Eye. This rough gem stock offers many possibilities. A good value at regular price of \$1.95... sensational at our advertised price.

Order as: 532-K.....now only 95c

MATCHER PAIR
GOLDEN TIGER EYE

Deluxe type cuff-link squares 1/4" x 1/4"... glistening and mysterious—very beautiful. This \$3.30 value pair of gems is spectacularly offered here.

Order as: 528-K.....special at \$1.95

GOLD PLATED Mountings for above 1/4" Golden Tiger Eye gems to make 1 pair of quality cuff links.

Order as: 539-K.....gold plate mountings pair \$1.00

TEENY-WEENIE
GEMS

Polished quality surplus gem cuttings, under 1/4" inch... very useful in decorative work. Make unique greeting cards, cement them on dress buttons, earrings, eyeglasses, etc. We've sold a "million" of them. A 2-ounce ass't bag actually contains 3 ounces—in case you do not like some of them. A big value and a highly popular item.

Order as: 536-K.....bag only \$1.00

STERLING SILVER
WIRE BARGAIN

\$2.30 worth of silver wire for \$1. Offer contains nine 6" lengths of Rd. Bead, Twist, 1/2 Rd., Bezel, 1/2 Rd. Bead, Square, and Round Sterling Silver wire.

Order as: 539-K.....\$1.00

100-200-300 power
DELUXE MICROSCOPE

Turret head, three eyepiece microscope of 100, 200 or 300 power. A fine optical instrument for hobbyist or serious student. Uses reflector or Electrical Substage Illuminator. 8 1/2" inches high. Comes in sturdy wooden storage case.

Order as: 529-K.....Now only \$8.95

MAKE A 6-GEM TRIANGLE BRACELET

Includes 6 ass't GEM TRIANGLES like this.



Offer includes everything you need to make striking bracelet... 6 polished, assorted, gem triangles (approx. 1" x 1/2") of Agate, Jade, Rhodonite, Tiger Eye, etc. 6 each cape and jump rings; plus bracelet chain... all gold plated. This is a regular \$4.65 value.

Order as: 523-K.....complete kit only \$4.95

1/2 pound TIN OXIDE SPECIAL

Top quality. Tin oxide; most popular polishing agent. Big 8 ounce package at a big reduction. Price includes postage. Special! Special!

Order as: 534-K.....only \$4.00

GIANT 130 CARAT
ROCK CRYSTAL GEM

Genuine 28 x 35 mm. rock crystal, octagon, faceted gem. A real show piece... should be in your collection. Would cost you \$67.50 to have this custom cut.

Order as: 531-K Sensational at only \$4.95

STERLING SILVER BRACELET CHAIN

7" length... angel wing design. Sterling silver chain and clasp. A regular \$1 value.

Order as: 522-K.....now only 55c

JEWELERS HORN ANVIL

A spectacular value... anvil is 4" long and 3/4" high. It is a \$3.90 value that we are offering at this special price to introduce our excellent line of tools to you.

Order as: 530-K.....Special \$1.29

QUALITY MALLET

...a mighty offer!

10 inch wood handle—steel center. Mallet is rubber one end—amber plastic other end. Extremely useful... you would expect to pay \$3 for this fine tool.

Order as: 526-K.....now only \$1.00

Preferred by amateurs and professionals alike. Practical, well-made, quality equipment. All necessary lapidary equipment is furnished, including 6" super-charged diamond blade for sawing; 5 grinding wheels, compounds, etc., including complete instructions. Mounts on table as small as 16 x 24 inches. Motor is not included. We pay postage. B & I GEM MAKER

Order as: 540-K.....only \$29.95



JEWELRY CRAFTS CATALOG
FREE

All items sold on Money Back Guarantee

PRICES INCLUDE TAXES AND POSTAGE
ORDER BY MAIL

AND SAVE! 1633 E. WALNUT

PASADENA, CALIF.

FRANKLIN, N. J. MINERALS

Galena. Microscopic crystals—cubes, cubo-octahedrons and perfect octahedrons. Sterling Hill, N. J. On crystallized friedelite. Only known specimen of crystallized galena from the area. $2 \times 3\frac{1}{2}$, \$10.00.

Chalcophanite. Sterling Hill. Minute rare crystals with the base and rhombohedron equally developed. On altered franklinite. Specimens from about $\frac{1}{2}$ to 1 inch suitable for micromounts. \$.50; \$.75; \$1.00.

Gageite. Franklin. With leucophoenicite, xln zincite, etc. Choice material for micromounts. \$1.00; \$2.00; \$3.00; \$4.00; \$5.00. About $\frac{1}{2}$ inch to about one inch.

Hodgkinsonite. Rare minute crystals in solution cavities of replaced zincite. Crystals are colorless to brown; the brown color due to inclusions of microscopic crystals of zincite, some showing the base. These zincite crystals can be seen only under very high magnification. A rarity among the rarities at Franklin, N.J. Specimens about $\frac{3}{4}$ to $1\frac{1}{2}$ inches. \$.50; \$.75; \$1.00; \$1.50; \$2.00.

Barysilite. In thick masses, not veinlets. From about 1×1 to 2×2 . Priced according to quality, size. For example, a few pieces about $1 \times 1\frac{1}{2}$ to $1\frac{1}{2} \times 2$ are priced at \$1.00 while some pieces about 1×1 to $1\frac{1}{4} \times 1\frac{1}{2}$ are priced at \$5.00 to \$7.50. Several dozen pieces at \$2.00; \$3.00; \$4.00; \$5.00; \$6.50 and \$7.50. Other superb specimens, 2×2 to 2×3 priced at \$8.50; \$10.00; \$15.00. Some very rich show pieces, fit for museum display, from $2\frac{1}{2} \times 3\frac{1}{2}$ to 4×5 , priced at \$25.00; \$35.00; \$50.00; \$100.00.

Johannsenite. Franklin, N.J. A show piece, 4×5 , showing radial green johannsenite with nasonite in massive yellow garnet. \$75.00.

Zincite. Micro xls, many showing pyramids, with minute crystals colorless to pink translucent to transparent hodgkinsonite xls. Choice for micromounting. Pieces about $\frac{1}{2}$ to $\frac{3}{4}$ inch, priced at \$2.00; \$3.00; \$4.00; \$5.00.

Parcel post charges extra. Excess refunded.

JOHN S. ALBANESE

Fine Minerals.

P. O. Box 221, Union, N. J.

WELCOME . . .

To Scottsdale and our new location

More convenient to other shops, restaurants and hotel accommodations at the entrance to Scottsdale's famous **Craft Center**

SCOTT WILLIAMS MINERAL CO., Inc.

440 NORTH SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA

Mineral specimens of all Countries • Mineralogical-Geological Books •
Microscopes • Collecting Equipment & Supplies **Catalog 25c**

Hours 9:00 to 5:00

Closed Sundays

Telephone: WHitney 5-0803

INDEX TO CLASSIFIED ADS

Adirondack Cabins	201	Hardin's	200	Oliver, John B.	196
Allen's	197	Harrison, Bob	200	Olympic Agate Shop	199
Allison Rock & Novelty Shop	199	Hartson, H.	199	Pappy's Beryl Shop	198
American Gem Hunter	197	Hazlett Stamp Shop	202	Parnau, John	194
Australian Gem Trading Co.	198	Hedges, Dick	198	Parser, A. G., Inc.	195
Berry & Co.	200	Helen's Rock Shop	198	Patapow, Andy	194
Bjoreby, Gunnar	194	Hiss, William	199	Peters Rocks and Minerals	197
Box 504	201	Hobby Club Rock Shop	199	Pinion Rocks	202
Box H	201	International Import Co.	195	Pioneer Museum	194
Breeders' Equipment Co.	199, 200, 201	Joachim, E. E.	195	Powers, George	199
Brown, Geo.	197	Jones Rock Supply	195	Radiant Ultra Violet	201
Brubaker, V.	197	Kaiser's Gem & Minerals	199	Rawhide Rock Shop	197
Carter, N. E.	194	Kendall, Phil	195	Red Wing Co.	195, 198
Chambers, Frank	202	Keys, B. J.	202	Reed Engineering	202
Chase, Paul	201	Kiser, Glen E.	202	Reese, Jerry	196
Christian, M. V.	197	Kowal, Julia	196	Rock & Shell Shop	197
Coles, The	200	Kramer's	198	Rocks & Minerals	198
Conklin, Lawrence H.	202	Kyte, Ken	197	Roder, John	201
Continental Minerals	196	Lamb, Maurice	199	Ross, William	196
Crafts, D & W	196	Lapidabrade, Inc.	199	Sansone, Leo	196
Cutting Scope Co.	200	Little Gem Shop	198	Santos, Tod	194
DeRusha, Lyle	197	Majors Rocks	199	Schenk's Rock Shop	201
Dick, Geo. C.	194	McCampbell, Bill	202	Scott's Rose Quartz Co.	198
Dixie Minerals Co.	197	Malicks	194	Shales	196
Duke's Research Lab.	200	Menser, Bob	194	Smith, Claude	196
Eaton, Robert	194	Monroe Mineral Store	202	Snyder's	196
Eastham, Frank	194	Morton Minerals & Mining	195	Stevenson, Steve	199
Ebinger	197	Mother Nature Art Shop	201	Stewart's Gem Shop	199
Ellis, Tom	195	Museum & Collectors Supply	195, 200, 202	Taylor, Gary	195
Everett Rock Shop	197, 202	Museum of Fossils	194	Trader Ed	200
Fairfield Lapidary	198	Nevada Rock Shop	196	Transpace Lab.	202
Fisher, Frank A.	198	Nichols, T.	195	Turner, Jack	198
Rick's Lapidary Shop	199	Northern Pines	200	Vellor Co.	196
Fraser, D.	194	Old Prospector	197	Wall, M. W.	199
Gemarts & Rocks 196, 201, 202		Old Trails Minerals	198	Western Minerals	196
Geological Enterprises	195	Oler, Edward	201	West Virginia Museum	200
Georgia R & S Garden	196			White, Don H.	194
Glen Canyon Trading Post	200			Whiteface Mineral Shop	198
Gold	202			Winthrop Mineral Shop	201
				Woolman's Treasure Chest	200

INDEX TO ADVERTISERS

Albanese, John S.	168, 206	M.D.R. Manufacturing Co., Inc.	
Arizona Gem Fields	168	Mineral & Gem Festival (N. C.)	
B & I Mfg. Co.	181	Mineral Equipment Co.	174
Beissinger, Ernest W.	175	Minerals Unlimited	
Black Light Eastern Corp.	191	Monadnock Mineral Shop	
Boardwalk Rock & Shell Shop	181	Montal, Juan	
Bobo Lapidary Products	169	Murray American Corp.	
Bob's Agate Shop	186	Museum & Collectors Supply	
Book and Lapidary Shop	171	Nelson Machine Works	
Bouton's Lapidary	172	Nutmeg Rock Shop	
Brauns, The	189	Ottawa Valley Gem Shop	
Burminco	188	Owens, Maj. Geo. W.	168, 172
Canaday Micromineral Co.	190	Painton's Rockery	
Canon City Gold Shop	164	Papoose Pond Camping Area	
Chilton Co. - Book Div.	91	Parser, Inc., A. G.	
Classified Ads	194-202	Pickers, R.	
Conklin, Lawrence H.	165	Pine Tree Gem & Mineral Club	
Collector's Shop	171	Plummer's Minerals	
Conn. Gem & Mineral Shop	188	Ponderosa Gem Mines	162, 170,
Covington Lapidary Eng. Corp.	173	Presher, Don	
Craft Students League	180	Prospectors Shop	166,
Crater of Diamonds	187	Quality Opals	
Craft's	175	R & B Art-Craft Co.	2nd Cover
Crestmark Mfg. Co.	165	Radiant Ultra Violet Products	
Dogsled, The	188	Ramblin Ranch	
Dowell's	164	Riley Rock Shop	
Duersmith, L. J.	177	Roberts Rock Shop	
Earth Science Publishing Co. Inc.	176	Rocks and Minerals	167, 178, 180, 182,
Ebersole Lapidary Supply	164, 171	Rollin' Rock Club	177
Elk Electric Mfg.	183	Romanella, R. C.	185,
Estwing Mfg. Co.	161	Ross, Harry	
Fluorescent House	178	San Francisco Valley Gem Co.	
Gem and Mineral Show (N.C.)	159	Sassen, George	
Gems and Minerals	182	Schorfmann's Minerals	
Geode Industries	3rd Cover	Science and Mechanics	
Globe Minerals		Seldman, M.	
Green, H & C	176	Shipley's Mineral House	
Grieger's	205	Smith, Claude A.	
Hardy, William	170	Southwest Developers	
Harveys, The	166	Stachura, Joseph P.	162-18
Heart of Connecticut G & M Show	160	Technicraft Lapidary Corp.	
Heathcote Mfg. Co.	179	Tepee Trading Post	
Higgins' Gem & Minerals	188	Thurstons, The	
Hill, V. D.	175	Treasure Crafts	
Hoover, Francis	185	Tynsky's Rock Service	
Inglesby, A. L.	173	Ultra-Violet Products, Inc.	163, 17
International Import Co.	184	Vails Motor Court	
Inter-Ocean Trade Co.	171	Valley Art Shoppe	
Jack's Rock Shop	179	Vescovi's Minerals	
Jackson, Don L.	162	Vi-Bro-Lap	
Jackson Hole Rock Shop	184	Victor Agate Shop	
James, John & Etta	163	Walker's Minerals	
Jud's Rock Shop	181	Ward's Nat. Sci. Est., Inc.	Back Cover
Kane Lapidary & Supply	162	Waskey, Frank H.	162, 17
Kurth's Jewelry	177	Western Rock & Gem	
Leather Craftsman	171	Williams, Scott, Minerals Co. Inc.	176, 20
Lost Cave Mineral Shop	166	Winthrop Mineral Shop	
		Wise, John M.	177
		Yedlin, Neal	

Buy and Use a Good Mineral Book

[illegible]